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**In what way can the Qu:Est model in the teaching of Liberal Studies
Enhance student's self-authorship**

By

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Requirements for the Degree of Bachelor of Education (Liberal Studies)

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Declaration

I declare that this thesis presents my own work, except where due acknowledgement is made, and that it has not been previously included in a thesis, dissertation or report submitted to this University or to any other institutions for a degree, diploma or other qualifications.

Signed: _____

Wong Man Yin, Franco

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Chapter 1

Introduction

1.1 Background

Concept attainment is neither memorizing nor cramming; but developing careful reasoning that promotes a person to learn. Thus as teachers, they are undeniably responsible in facilitating students to establish their own understanding. By such means, they may foster students to engage in their thinking operations (Dantonio & Beisenherz, 2001) and make them learn truly. In view of this, a questioning strategies, “Questioning for understanding: Empowering student thinking (Qu:Est)” is designed is studied in this research for better teaching and learning.

Spoon-feeding is such an old criticism of Hong Kong education. Cramming which perhaps allow student to retrieve pieces of information may bring them satisfaction but not true knowledge. It is also spoon-feeding when students are not able to internalize a concept collected into own knowledge. In this paper, it is believed that The Qu:Est model which emphasizes cognitive learning and ownership, would provide relevant insights in tackling the problem. Also, to understand how a concept learnt from students relate to their self-understanding and belief system, the idea of self-authorship will also be studied. Believing that Self- authorship would be enhanced by using Qu:Est strategies, this research investigated: In what way can Qu:Est model enhance student’s self-authorship in the teaching of Liberal Studies.

1.2 Reintroducing Liberal Studies

Liberal Studies emphasize conceptualization in learning. The teaching materials are not fixed and it promotes student's enquiry using issue-based learning. All these emphasis requires student's strong eagerness to learn with their own perspectives and thinking as well as the skill of conceptualization. Therefore, it is assured that concept attainment is an important learning process that the Qu:Est which may strength student's attainment in concept will be beneficial to students. Student is also required to possess their own viewpoints and perspectives within their enquiry. Self-authorship which promote students to listen their internal voices, is therefore very important for students in learning liberal studies as well.

1.3 Research rationale

Followed the believe of the invention of the Qu:Est model questioning strategies, it is firstly believed that concept is constructed . Student's performance in learning will be enhanced when the student's ability in constructing concept is strengthened.

Secondly, it is believed that there is a close relationship between concept attainment and self-authorship. When a student is constructing a concept, he or she has to interpret and understand, using his or her own internal voice.

Thirdly, it is also believed that the improvement in the instructional strategies of questioning will benefit student's by allowing them to build concept in a better way as well as their trust of their internal voices.

Chapter 2

Literature Review

2.1 Study of the Qu:Est model

2.1.1 Study of the rationale of the Qu:Est model

Questioning for Understanding: Empowering Student Thinking (Qu:Est) is an instructional strategies that composed of productive questioning practices in introduced by (DANTONIO & BEISENHERZ, 2001) in 2001. The instructional designs may help learners' to increase their conceptual awareness and understanding when constructing concept.

Instead of focusing only on the learning outcome of the concept, Qu:Est strategies promote learning as a process. Regarding that constructing concepts and understandings require thinking operations of an individual, the strategies assist teachers and students to have instructional conversations that engage them in thinking about the related experiences. According to the words of (Dantonio & Beisenherz, 2001), it allow students to expose and refine their understandings of content knowledge.

Active and passive learners

Students are classified into two types of learners according to Dantonio & Beisenherz (2001) with two opposing adjectives – active and passive.

For passive learner, it is mentioned that the students may memorize a certain concept, or even recall, recite, review, restate, remember the information about the concept. However, they could not possess any meaning for them but only retrieving information without understanding it.

On the contrary, active learners who understand information with meaning undergoes conceptual learning that acquire and process specific information pertinent to concepts for themselves (Dantonio & Beisenherz, 2001).

The process of active conceptual learning consists of several knowledge operation procedures. Firstly, students are to generate certain related experiences and information about a concept. They have to, secondly, discover the relationships and patterns appear among the information and experiences that become certain words and phrase called concept labels. Thirdly, by articulating the critical characteristics, attributes and differences about each concept labels, students may understand the meanings of the concepts instead of just memorizing the concept definitions. Most commonly, it is a good method for students to classify new examples of the concept learnt which requires student to analyze the new example's characteristics to it meets the critical characteristic or attributes of a concept (Dantonio & Beisenherz, 2001). The following words from Dantonio and Beisenherz (2001) summarized nicely the requirements of true conceptualization:

"Conceptualizing demands that students be in full charge of their thinking and be able to monitor their learning in manner"
"The Quest strategies are, therefore, designed assist students to construct understandings in a more active learning manner."

Conceptualizations in Qu:Est model therefore involves students active participation to monitor their own learning manner which is supported by well design instructional strategies.

2.1.2 Study of the structure of the Qu:Est model

As mentioned in 2.1.1, thinking operations are classified into three procedures which can basically summarize into three phases using an example of fruit. They are:

(1) Collecting information and experiences

(e.g. students give examples of fruit including orange, apple, grapes, and lemon)

(2) Discovering relationships by comparing the information to obtain concept attributes and labels

(e.g. they are eatable, they have fruit skins and they have seeds inside of the fruit)

(3) Articulating and addressing the critical characteristics of the concept

(e.g. all fruits have seeds, some types have fruit skins to protect the fruit and seeds)

The structure of the quest model align with the thinking operations by facilitating student's thinking in each process, stratified into three instructional strategies named (1)collecting , (2) bridging and (3) anchoring strategies.

Collecting Strategies-Observing and Recalling

Collecting Strategies are designed for students to collect specific and related information, as a foundation to build up concepts. They are further sub classified into observing and recalling strategies. For observing strategies, the design focus on instructional conversations that facilitate students to locate and collect specific physical information that students can pick up through their sense upon the materials provided or students' own personal experiences. These allow students to perceive valuable information from their own experiences and concrete scenarios that may related to their personal stories and involvements (Dantonio & Beisenherz, 2001).

Moving to the recalling strategies after perceiving sufficient information, students will be assisted to retrieve the accurate and reliable ones among them that in closely related to the concepts that they are building up. Such recalling is important in two ways; that it, firstly, requires student to verify the information through discussions and responses among different sources and, secondly, facilitate students to select and congregate relevant, reliable and meaningful information that is essential and crucial for forming a well-constructed concepts.

Bridging Strategies- Grouping

Having sufficient essential information as resources, thinking operation requires comparing, contrasting and grouping to create a concept. These strategies are aimed to allow students to discover the pattern and relationships among the previously isolated information to form larger ideas that connect with each other. Students are to connect the specific, segregate pieces of information together with the critical common characteristics each possesses that forms a basis of a concept. There are three bridging strategies to be used depends on the situation of student's learning. They are namely (1) contrasting strategies, (2) comparing strategies and (3) grouping strategies.

(1)Contrasting strategies - to locate differences

Contrasting strategies are to locate and distinguish differences among the essential information. In forming initial concept, students are to contrast the differences of the information and to sort out the differences that are not relevant to the concept. Illustrations are as follow

Considering the items: Bicycle, ship, bus, fish, water, tunnel, apple
Possible differences: fish and ship and water are wet while bicycle, tunnel and apple are dry
Apple is a food while the others not

Bicycles ship and bus are transportation while the others are not

With contrasting strategies, students can list out the differences among the items to prepare themselves to understand them through the next strategies

In other words, students are undergoing contrasting strategies to gather the differences among the information that are the critical characteristics..

(2)Comparing strategies - draw common critical characteristics

After contrasting strategies in order to draw commonalities, similar issue and pattern among the critical differential characteristics of the information for building up concepts later. Take the same example for illustrations:

Considering the items: Bicycle, ship, bus, fish, water, tunnel, apple

And consider this contrast:

Bicycles ship and bus are **transportation** while the others are not

For instance a student suggests this; other students also have to understand what means transportation. Through the comparing strategies, students have to investigate what are the common characteristics of **transportation**. For instance, if some students discover that:

They are transportation because they are **bring people (passenger) to travel from one place to the other**

Then the comparing strategies will be successful to let students to consider what critical characteristics are in common in understanding the concept- transportation.

(3) Grouping strategies - extend concepts

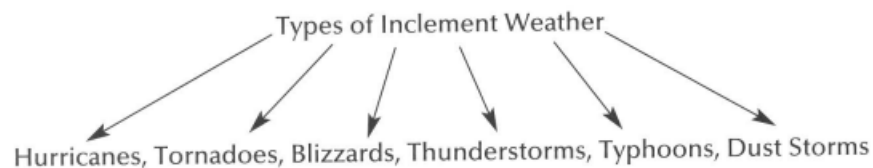
Grouping strategies are used when students are to extend concepts to other related concepts.

Instead of locating similarities or differences that mentioned in above strategies, students are to

group the information and examples that appear alike to them in some way. Most importantly,

students must establish a clear reason and explanation for each grouping that distinguish it from the

other groups. Using Dantonio's and Beisenherz's illustrations (2001)



The grouping strategies may allow students to study the sub-concepts under the concepts of inclement weather.

Anchoring Strategies

Once students have undergone the bridging strategies mentioned above, students require a thinking process to label and name the concepts, or to determine the concepts with new examples in order to consolidate the concept constructed. The connecting patterns which are drawn from the similarities and differences in the bridging strategies are called concept attributes. The anchoring strategies are further sub classified into labeling and classifying strategies to “anchor” it that is to provide a means for efficient communication of the concept attributes.

Labeling strategies are used to allow students to engage in conversations to label the concept

attributes with precise wording and vocabularies. Students also gain opportunities to appreciate and

learn to select precise definitions and descriptions from each other through sharing in conversations and discussions.

Lastly, the classifying strategies aimed to provide rooms for student to analyze new examples with their constructed knowledge of the concept. By these means, students are ensured to have opportunities to establish meaningful linkages between facts and information that appeared to be specific and separated to them before.

2.2 Study of Self-Authorship

2.2.1 Study of the background of Self-Authorship

Self-authorship is described as an outcome of a conceptual evolution by Baxter Magolda, Holdge and Haynes (2009). From Piaget's (1950) idea of constructive-developmental perspective in learning, it is described that a person makes meaning by making structures base on how he or she experience, that is called assimilations, and has to accommodates with new experiences when there are too many exceptions that overwhelm the current structure.

On top of this constructivist perspective, Baxter Magolda (2004) mentioned that a person will evolve awareness on the meaning structures they have established and with certain maturity on this evolving process; a person may eventually obtain Self-authorship. The evolution contains three developmental dimensions named by Epistemological, intrapersonal and interpersonal foundations, which will be explained in detail in the following session.

This development of the concept of self-authorship was commenced by Baxter Magolda's studies in her 1980s. She had conducted 21-year longitudinal qualitative study which is initially a study about

intellectual development and gender differences. With her interest in investigating further more about transformational learning, which became an important issue that time, she continued the constructivist approach and has shifted the study to a more holistic view about self-authorship in young adult life (Baxter Magolda, 2008).

2.2.2 Study of the definition of Self-Authorship

Definition of Self-Authorship

Self-authorship, according to Baxter Magolda (2004), is “the capacity internally which defines a coherent belief system and identity that coordinates engagement in mutual relations with the larger world. It is also a learning outcome in a developmental journey. To achieve self-authorship, a person has to construct a self-authored system with three elements (Baxter Magolda, 2008).

Three stages of development

From External formula to crossroad and to Self-Authorship

As mentioned that self-authorship is a developmental journey, a person experienced various phases and eventually reach self-authorship, Table 1.1 created by Baxter Magolda (2004) provides an overview of the journey towards self-authorship.

Journey Dimension	External formulas	Crossroads	Self-authorship
Epistemologic al	View knowledge as certain or partially certain, yielding reliance on authority as source of knowledge; lack of internal basis for evaluating knowledge claims results in externally defined beliefs	Evolving awareness and acceptance of uncertainty and multiple perspectives; shift from accepting authority’s knowledge claims to personal process for adopting knowledge claims; recognize need to take responsibility for choosing belief	View knowledge as contextual; develop an internal belief system via constructing , evaluating, and interpreting judgments in light of available evidence and frames of reference
Intrapersonal	Lack of awareness of own values and social identity, lack of coordination of components of identity, and need for others’	Evolving awareness of own values and sense of identity distinct from external others’ perceptions; tension between emerging internal	Choose own values and identity in crafting an internally generated sense of self that regulates interpretation of experience and

	approval combine to yield an externally defined identity that is susceptible to changing external pressures	values and external pressures prompts self-exploration; recognize need to take responsibility for crafting own identity	choices
Interpersonal	Dependent relations with similar others are source of identity and needed affirmation; frame participation in relationships as doing what will gain others' approval	Evolving awareness of limitation of dependent relationships; recognize need to bring own identity into constructing independent relationships; struggle to reconstruct or extract self from dependent relationships	Capacity to engage in authentic interdependent relationships with diverse others in which self is not overshadowed by need for others' approval; mutually negotiating relational needs; genuinely taking others' perspectives into account without being consumed by them

2.2.3 Way of assessing the Self-Authorship

Three elements of Self-Authorship to build Self-authored system

The three elements stated by Baxter Magolda (2008) are from the longitudinal studies. These three elements :(1) learning to trust their internal voices, (2) building an internal foundation and (3) securing internal commitments. It is important to know that these three are not separate elements. Furthermore, they are developmental, meaning that each element promotes the other. According to the finding, Baxter Magolda (2008) stated that self-authorship developed firstly by the element: trusting their internal voice. Such trust facilitates the second element (2) building an internal foundation and finally the third element (3) securing internal commitment are developed when the foundation is adequate.

(1)Trusting the internal voice:

Trusting the internal voice is the first phase of building the self-authored system. It is the phase for a person to learn to distinguish between one's reactions and the reality. By distinguishing it, a person understands that the reality is indeed beyond one's control. For instance, a student who faces challenges and difficulty in learning may blame and want to take full control of the current situation.

When the student learn to trust the internal voice and distinguish the reality and his or her reaction, instead of blaming the difficulty of the subject or requesting teachers to include less in the final exam (so as to try to control the reality), he understand the situations are beyond one's control and focus on his or her learning (one's reaction).

Trusting the internal voices heightened the ability to take ownership of how they made meaning of external events (Baxter Magolda, 2008). It also enable them to be more flexible and move around, rather than get stuck by the challenging reality and try to change the obstacles encountered. By focusing more on one's reaction, a person move from awareness of the external reality to confidence in their internal voices. This also allow a person to have more exploration and be more willing to accept challenges.

Even there are times of confusion and frustrations due to the external difficult realities, trusting internal voices may help a person to analyze the situation and reconstruct some aspect of their beliefs, identity or relationships in various contexts (Baxter Magolda, 2008).

Such awareness of the internal voices facilitate person to build up trust to their internal voices in each developmental dimension of self-authorship, those are the epistemological, intrapersonal and interpersonal dimensions.

(2) Building an Internal foundation

Sufficient confidence to trust of internal voices builds a person's internal foundation. The foundation is about creating a philosophy or framework to guide one's reaction to reality (Baxter Magolda, 2008). With such, one's may refine their personal, internal authority in determining their beliefs, identity and

relationships. With the internal foundation, a person starts to explain how and why ones made particular choices and decisions that assure and shape one's identity.

Such foundation enhances one's reflection capacities and the quality of support to self. For example, when a person look back on the painful failure and experiences, ones may reflect more and come up with more positive conclusions that strengthen the internal foundations. In other words, a person with internal foundation possess more introspections and live with their convictions that construct his or her identity in a more coherent and positive way, using the past experiences.

By such retrospections and reflections, the internal foundation synthesizes the three dimension of self-authorship into a more integrated and cohesive entity.

(3) Securing Internal Commitments

The convictions of the internal foundation bring a person's development of self-authorship to the final phase – securing internal commitments. In this phase, ones feel that living their convictions was as natural and as necessary as breathing (Baxter Magolda, 2008). Ones include absorb the external knowledge and information into their inner wisdom as an entire being. A person is no longer guided by the external formula of the world but the personal authority, which is a very core element for a person's identity.

When face challenges, a person no longer constrained by fear of things they cannot control but open to learn about new things with faith and trust in their internal foundations. Ones may accept new versions of normal (after adjusting the expectations) and enjoy the new dynamic process of living a internally authored system (Baxter Magolda, 2008).

The relationship of the three elements

Each element reflects a distinct focus. However, all three elements are within the same meaning-making structure but of increase level of complexity. Trusting the internal voices is the initial elements involve developing internal trust in making decision; the intermediate elements involve using such voices to build a foundation that solidifying the internal system. The advance elements involve refining and strengthening the internal system that contribute to a person's core existence (Baxter Magolda, 2008).

Therefore, all these three elements are based on the same underlying principle stated by Baxter Magolda (2008)- internally determining one's belief, identity and social relation.

Misconceptions and clarifications

There is a misconception of self-authorship worth clarifying. Self-authorship is always mistakenly considered as a simple linear trajectory. It, however, possess a cyclical nature of evolution that is ever-changing (Baxter Magolda, 2009). This re-affirms that self-authorship is neither a learning outcome nor a destination; it is instead a state of journey in learning. This clarification of idea is crucial as it helps the research to assess self-authorship in an appropriate manner. Instead of indicating and measuring the "existence of self-authorship of student" in such a scientific way, the traits and important factors that facilitate the development of self-authorship will be investigated.

2.3 Research questions

There is a gap between the attaining concept and the enhancement of self-authorship. How does the Qu:Est model influence student's self-authorship? This research investigated such gap.

However, the research should right beforehand, firstly, examine if the Qu:Est model really facilitates students to attain concept. As only when the Qu:Est model enables students to name and label concepts with their own words, the concept and knowledge would be generated and attained by students themselves.

When the above is valid, the authority of providing knowledge would shifted from teachers to students, which correlates to the concept of Baxter Magolda (2008) who explained self-authorship as a state that a person is not authored by knowledge, but it is the person who authors knowledge, in which achieves a personal authority. The research therefore secondly would investigate how the concept attained by student influenced their self-authorships.

Base on the knowledge gap mentioned above, the two research questions are subsequently included:

1. Does the Qu:Est model facilitate students' concept attainments? How?

2. Do the concept attainments via Qu:Est model enhance students' self-authorships?

How?

Chapter 3

Methodology

3.1 Research Strategies

Case study was used as the research strategy. It was considered an appropriate strategy as self-authorship is a holistic complex idea (Baxter Magolda, 2008). Unlike an experiment, which defines with operational standards and definition; self-authorship has to be investigated in real-life situations. Moreover, case study is considered suitable as the research was an empirical, exploratory study investigating the relationship between the quest model and students' self-authorship.

Regarding the research method in practice, the exploratory qualitative study was conducted by semi-structure qualitative interviews. The interview started with questions related to students real-life situations that were related to their learning. Further questions would follow-up the concerns about how they viewed themselves and their role in the community (which was about intrapersonal and interpersonal aspects of self-authorship) and way of building knowledge (which related to the epistemological aspect of self-authorship).

3.2 Participants

The research was conducted in an ethnic minority (EM) school where my teaching practicum was conducted. The formal consent was obtained from the school principal before the research commenced. In the research, three participants in senior secondary curriculum are volunteered. They are all secondary 5 boys studying in the same class taught by me. These EM students were aged

approximately between 16 and 18 from Kenya, Pakistan and Philippines. All participants have returned the assent letter and indicated their agreement on joining this study.

3.3 Research Procedure

3.3.1 Instructional design- Lesson study

Lesson study was conducted in a F.5 liberal studies double lesson with 8 students including the three volunteers who participated in the case studies. That was a lesson about Modern China. Before that lesson, students had previously went through 4 issues related to modern China, namely (1) corruption, (2) mass incidents, (3) petition and (4) internet censorship. The purpose of that double lesson was to facilitate student to analyze and link-up the four issues by generalizing them into concepts in order to obtain a better understanding and a more holistic view about the issue happened in China. To achieve this, the Qu:Est teaching model are implemented in the lesson design. The lesson study was audio taped and used for observation to collect data.

The lesson was divided into three parts. Firstly, students were invited to recall the information and idea learnt regarding the 4 issues. Secondly, students were then secondly required to put the issues together into various groups with noted commonalities or patterns based on the information recalled (also known as critical concept attribute and characteristics). Finally, students were to cooperate to label the certain groupings using their own words and vocabularies precisely. In the second and third part of the lesson, students were required to explain clearly the reasons of why the issues were grouped and labeled in such ways. Throughout the lesson, the cognitive thinking operations namely recalling (collecting strategy), grouping (bridging strategy) and labeling (anchoring strategy) were included. The lesson had therefore fully covered the three Qu:Est instructional strategies.

3.3.2 Interview

The three students were invited to participate in 1-2 audio taped half-hour interviews. Interviews were conducted before and after the lesson study. Both the pre-interview and post interview had included two students which ended up in a total number of 4. The interview questions were taken reference from Baxter Magolda's Research (2007) investigating learning outcome of self-authorship from a learning model (learning partnership model). The questions aimed at exploring how students learn and come to know through Qu:Est instruction strategies.

In the beginning of the pre-interview, students were asked to describe a specific academic challenge that he faced in school. He then had to explain why it was a challenge and how he felt. The interview was designed to be semi-structured and it provided space for exploration of each student's unique issues (miles & Huberman, 1994). Follow up questioned was asked when the interviewer spot that the answers were to a large extent closely related to concepts such as the three dimensions (epistemology, intrapersonal and interpersonal aspects) and the three elements (internal voices, internal foundations and secure internal commitments) of self-authorship.

When it came to the post-interview after the lesson study, similar structure questions were asked to the students. The interview began with the learning challenges the student faced specifically in that lesson study (instead of a specific academic challenge encountered), follow up questions were also asked when the answer is closely related to the idea of self-authorship. Then, students were also asked to comment on their learning on the three parts of the lesson mentioned in the session 3.3.1 lesson design.

3.4 Data analysis

Data analysis strategy

Case study which is an empirical research study always has a “story” to tell (Yin, 2009). An analytical strategy is thus crucially needed to craft the story and make the words and data come alive. Without the strategy, a framework is lacked of organization. Evidence would be risked to be unfairly treated. Also, the analysis would lose focus with unclear directions. The analytical strategy used in this research is explained as follows.

3.4.1 Analytical Strategy: Relying on theoretical propositions

Research purpose as verifying propositions

Yin (2009) suggested the strategy “relying on the theoretical propositions” as the first and most preferred strategy to analyze case studies. In reality, every a case study begins with theoretical propositions. In this research particularly, the proposition is that

Proposition:

--- Because active conceptual learning enhance the a student’s self-authorship (as it requires learners to relate the concept learnt with them) --- Qu:Est model which emphasize active conceptual learning enhances a student’s self- authorship.

The research is therefore precisely investigating in what ways does Qu:Est enhance self-authorship. Elaborated Yin (2009), propositions would have shaped the data collection plan and therefore would have given priorities to the relevant analytic strategies. In this research, the analysis strategies were related to the possible influence of self-authorship by Qu:Est model. The influences were divided into several categories for investigations and discussions, which would be explained in chapter 4 Findings.

3.4.2 Analytic Techniques

Specific analytic techniques were required to carry out the strategies mentioned; the techniques used were illustrated as follow.

Pattern Matching

Pattern matching was commented as one of the most desirable techniques in case study analysis by Yin (2009). Such technique utilizes pattern-matching logic (Trochim, 1989) by comparing an empirically based pattern (for instance from the data collected in the Qu:Est model lesson study and those interviews followed) with the predicted pattern (derived from the logic of the propositions). In this situation, considering how does the Qu:Est model (an independent variable) enhance student's self-authorship (dependent variable), the matching of patterns were related to these two variables. If the pattern coincides, the validity of the findings of the case study would be strengthened.

Explanation Building

This technique aims to build explanation on the patterns identified from the evidences. One thing worth mentioned is that, despite the research possessed propositions (or in other words, to examine hypothesis), the goal of explanation building is not to conclude a study but to develop ideas for further study (Yin, 2009). By such means, it can create more rooms for explorations and investigations for the further study. This also shows that a research is not necessarily giving an exact answer (such as an absolute "yes' or "no"), but more importantly to reflect critical insights and concepts for further researches.

Using narratives are appropriate ways to collect data and evidences and handle holistic concept (such as self-authorship) in explorative case study. As stated by Yin (2009), the better case studies are the ones in which explanations have reflected some theoretically significant propositions. In this research for instance, the casual links between Qu:Est model and self-authorship would reflect critical insights that foster further investigations in this field, which assured the significance of this research.

3.5 Validity and Reliability and limitation

3.5.1 Validity

Pilot-pre interview sessions

Considering the interview questions, the validity was enhanced by conducting pilot pre interviews.

Before the lesson study, two students were invited to have a pre interview. There were two benefits in such way.

Firstly, it allowed the researcher to understand more about the students' backgrounds in order to design and prepare the lesson study more appropriately. Secondly, it acted as a trail run of the interview. After running the interview questions in the pre-session, some interview questions were modified based on the experience of the trial. This facilitated the effectiveness of the interview questions of the post-interview. For instance, during interviewees shared their learning experience in the lesson study, more precise and related follow-up questions were asked by the interviewer. Those concrete follow-up questions included: how they positioned themselves in class. How the classroom dynamics and the relationships (among themselves and classmates) were during the lesson study.

Triangulation and Cross-verification

Referenced from Yin (2009), the research also attempted to enhance the validity by cross-verification. This was to ensure that the data collected in the case study were from diverse sources. Other verifications were mentioned as follow.

Reflection of the teacher

After the lesson study, the teacher immediately did an audio reflection. The teacher described the learning atmosphere, classroom dynamics and the level of participations, engagements of students. He had also commented on his teaching by evaluating if the lesson is successful. For instance, it marked that the lesson was generally successful as the students were able to label two groups of concepts at last; while the first part (the session of collecting strategy) was less successful as the students were not able to recall the information learnt enough. The teacher eventually “re-taught” some content before moving to the next part.

The reflection of teacher was important as it included opinions and views from the teacher, which was one of the valuable data in the case study.

Observation of the lesson study

Apart from the subjective reflections from the teacher, there were data collected objectively. The lesson study, precisely — the lesson, was audio recorded. It provided a valuable opportunity for the researcher to observe the lesson by listening to it. The audio was crucial as it was the only access towards the details of the lesson. Without the audio, the researcher was not able to observe the teachers teaching and students learning in a specific and objective manner. The lesson observation

also captured different dimension of the phenomenon in the case study and supplemented the data collections.

3.5.2 Reliability

Data is paramount to be not only valid but also reliable. The data is reliable when same results and findings are arrived through repeating same research procedures. This is to minimize the errors and biases in a study (yin, 2009). Unlike questionnaires which may involve a huge amount of participants, case studies are comparatively difficult to include massive amount of participants. For this reason, this research aimed to enhance the reliability by considering the design of the case study.

Embedded multiple case study design

A single case study with embedded units only allows the researcher to understand one unique/extreme/critical case (Baxter & Jack, 2008). Through multiple cases, the similarities and differences can be examined in between. As a result, the evidence created from this type of study is considered to be more robust and reliable.

In this research, three participants were volunteered and two of them had been interviewed after the lesson study. It was considered to have two case studies under the same setting. The goal was to produce replication for the research to enhance the possibility of the analytical generalization. For instance in the case study, the analysis would be more reliable when it was generalized from the finding of both two cases instead of one.

3.5.3 Limitation

This research contains several limitations. Firstly, due to the limited time, the lesson study could only been conducted once. The data collection could therefore only depend on the performance on that

particular lesson study. Secondly, as the Qu:Est model was new to the students, the collections of data may be different when students were more accustomed to such model. Such limitation also appear in the role of the practitioner, the teacher in the lesson study, as it was the first in practicing the Qu:Est model, despite a thorough literature review has been conducted already. Thirdly, the lesson study has been conducted in an ethnic minority school while the research participants were ethnic minority. It was therefore difficult for the research to generalize the research findings to represent situation of the local Hong Kong context. Yet, it especially provided an insight for further research especially for the ethnic minorities in Hong Kong. Finally, self-authorship is a holistic concept that required a long term study to achieve more valid and reliable result (therefore the idea of self-authorship was researched through a 21 year longitudinal studies by Baxter Magolda (2008). There were limited time and resources for this research to conduct longitudinal studies, which may limited the findings on student's self-authorship in this research.

Chapter 4

Findings

In this chapter, discourse analysis was used to identify the findings from the lesson study and interviews. Analytic techniques mentioned in Chapter 3.4 including pattern matching and explanation building were also applied. The finding was to answer the two research question based on the study of the Qu:Est model in Chapter 2.1 and the study of the self-authorship in Chapter 2.2.

4.1 Introduction of the data collection- lesson study and interviews:

Qu:Est strategies was introduced in the lesson study lesson which aimed to facilitate students to build linkages and have holistic understanding about issues happened in China with concept labels named by them.

The 60 minutes lesson linked up the 4 concepts learnt previously about china: (A) mass incidents; (B) corruption; (C) internet censorship and (D) petition. The whole lesson was divided into three session according to collecting, bridging and anchoring strategies following the Qu:Est model.

Collecting session (~30mins)

In the beginning of the lesson, the teacher showed a PowerPoint showing some photos of the students. In the photo, students were role playing about the 4 concepts (i.e. a student was bribing the other, representing the idea of corruption). It was observed that the students were very interested as the students involved were whom they knew well.

After revisiting the 4 concepts, the teacher initiated the collecting session by demonstrating how to recall the information learnt, using (D) petition as an illustrations. Students were then required to recall for the rest 3 concepts by group discussion. At first, it was observed that the students were not able to recall a lot of information, students felt a little bit lost about what to do. The teacher then facilitated them by giving more instructions such as asking them what were the relevant cases studied and he used some W-h questions to open some more rooms for discussion. Students did not recall lot information within the group discussion. However, with the aid of the teacher, students contributed more and had recall much more ideas learnt about the 4 concept in the whole class discussion. It was noticed that students participated more in the whole-class discussion than the split group-discussions.

Grouping session (~20mins)

About the instructions of the grouping, the teacher demanded the students to group using 2 or more out of 4 in a group. He explained that the grouping should be done in connection with their **common critical characteristics possessed**. However, it was discovered that some students did not understand how to group by locating the common characteristics, they grouped by linking the concepts with cause and effects or in stories, one illustration was as followed.

Student B:	Internet censorship by the government and there are mass incidents.	18
		4
Teacher:	So why? What is the reason I group them together.	18
		5
Student B:	This happen very close to that one.	18
		6

Teacher:	Okay you try to link them but you cannot group them together. So there is something upon the three ideas, okay? Brian, what are the three things we group together? Hamza has a very good try so I am going to explain the reason why I group them in this way.	18 7
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The teacher discovered the students grouped by cause and effect but not critical characteristics in common and he corrected the student and demonstrated the following example to make the instructions of the grouping clearer.

Teacher:	So I will show you one possible thing to group them together. So for example, group number 1. Mass incidents, does it related to the ideas how people express opinions to the government? (Students agreeing saying yeah...) I use the word opinion, okay? Why internet is blocked? (students try to explain saying because) Because when they say something bad, the government doesn't want them to show up because it affects the reputation, so this related to opinion right? The third thing, partition, the opinion from Chinese people to whom?	19 2
Student G:	Government	19 8
Teacher:	So this is also giving opinion right? So for group number one, I try to group these three things together, and the reasons are...?	19 9
Student B:	Opinion	20 1
Teacher:	Because these entire three thing include opinion. Okay, now have a look, why it does not include corruption?	20 2
Student B:	Because these things do not involve opinion.	20 4
Teacher:	Teacher: Yes, because these are related to opinion but corruption is related to money. So this is important to group these three things together as it helps you to exclude corruption, right? So you know the way to group, right? Now I want you to try your own grouping. You can group to two to three groups and think why they are related together. So now I give you some time to group together. Everyone at least try two to three groups.	20 5

With the demonstration, student grasped the way of grouping better and some grouping had been done appropriately while a student still group by linking the events together only. Then, the whole-class discussion ran for 15 minutes. Students had suggested 4 ways of grouping and the result were

stated on the blackboard summarize as follows (table 4.1): (A) mass incidents; (B) corruption; (C) internet censorship and (D) petition.

Group no. of topics	Topics Involved	What are the reasons we group them together?
(1) (By teacher)	A,C and D	A,C and D contains opinion; (B) corruption does not relate to opinion
(2) (By Student B)	A,C and D	People have freedom in A; no freedom in C and D
(3) (By Student M)	A and D (Became A,C and D after teacher's suggestion)	A and D there are to voices of people; C people have limited voice because some voices are blocked
(4) (By Student B)	B and C (Became A,,B,C and D after teacher's suggestion)	B and C is hiding something; A and C is revealing something
(5) (By Student M)	A,B,C and D	All these are related to the Chinese Government

Table 4.1 Result of grouping stated on the blackboard

Anchoring session (~10mins)

Gathering enough groupings, teacher invited students to try to name them, leading the class to the final session with anchoring strategies. Within the rest of the time, students had succeeded in naming group (4) and (5) using the concept label “hide and seek” and “government’s good and bad” respectively.

In this session, students possessed different labels in the grouping (4), some students suggested “government good and bad” and some said 50/50 (meaning government is doing half good and bad). It was discovered that students had made different attempts base on what he understood and believed. In the grouping (5) two students label the grouping as “hide and seek” and made similar explanation. While in the interview, a student reported that he had another idea, naming it as “negative side of the government” yet he did not voiced out, thinking it was not necessary as the

question was answered by other students already. This worth investigations and the analysis in the next session would address that.

It was believed that the anchoring session allow students to develop a more holistic view about the issue of China by using concept label to link up the issues happened in China, via locating and understanding the common critical characteristics of the 4 concepts.

Interview sessions:

Two 20 minutes interviews had been conducted after the lesson study. Two students A and B were invited separately. As student A had been invited in a pre-interview, he was invited again to share his thoughts and opinion about the lesson. For Student B, though he did not take part in the pre-interview, he was invited as he had participated in the lesson actively and contributed a lot of ideas. In both interviews, students were invited to share one of the major challenges in learning in the lesson. Follow-up questions were asked by the interviewer who was also the teacher of the lesson. The interviews ended by asking for general comments about the lesson.

Overall, there was an impression that the students did possess their own conceptualization. However, the students focused a lot on how to address the “correct”, answer of teachers or how to cooperate with teacher or satisfy the teacher’s expectation, instead of developing own way of learning.

4.1 Does the Qu:Est model facilitate students’ concept attainments? How?

4.1.2 The Qu:Est model facilitated students’ concept attainments

To begin with, it was sure that students had successfully attained concept in this lesson study.

Evidence included the two concept label “hiding and seek” and “government’s good and bad” which

addressed the issue appropriately and relevantly. Also there were clues which agree that the Qu:Est model is facilitating students concept attainments.

Recall rather than memorize

Firstly, students are required to recall the information about the four concepts instead of memorize. If students are to memorize certain information, they have to receive new information, absorb and digest new ideas from the external surrounding. Students who were required to recall information learnt were indeed sharing what they already knew. The information recalled came from their internal thoughts and mind. By recalling, it ensured that students were ready to build concept with their own understanding instead of memorizing certain phrases and sentences provided externally to satisfy the teacher or the lesson requirement. Preparing students with the existed internal knowledge through collecting strategies played the first role in facilitating students' concept attainments. This is illustrated with a dialogue of the lesson study shown below.

Teacher:	Okay any other related concept you remember about our discussion last time? What did you remember? Who is involved?	93
Student G:	Public.	95
Student W:	Yes very good, public.	96
Student B:	The government.	97
Teacher:	Yes the government and politicians. Why are there mass incidents?	98
Student G:	Public voice out their demands	99
Teacher:	Yes, voice out demands, okay what are the demands?	100
Students:	Freedom	101
Student A	Freedom of protest freedom of speech freedom of rights.	102

As shown above, the concepts were recalled by students, examples includes words such a **public**, **government**, **freedom**. Teacher, instead of providing input and requesting students to memorize new information, he facilitated students to elaborate on their expressed concept by asking them to explain.

Students then recalled more, including elaboration – public **voice out** their **demands** and sub-concepts freedom of **protest, speech and rights**.

Learning to group with common critical characteristics for concept attainment

In the grouping session, students had successful made up 4 groupings. It is discovered that the grouping exercise had well prepared students to concept attainment. To make a reasonable grouping, students had to address the four concepts and locate certain concept attributes of each of them. Take the grouping (6) as illustrated below

(6) (By Student B)	A, C and D	People have freedom in A; no freedom in C and D
Student B:	Mass incidents, people have freedom. Internet censorship people don't have freedom and petition people also don't have freedom.	222
Teacher:	So, it is A, C, D (representing the three concepts) the reason of the grouping? (Three students answer at the same time) Student B: Mass incidents people have freedom, internet censorship and petition people don't have freedom.	224
Teacher:	Alright, is that okay? So A means mass incident here. B means corruption, C means internet censorships and D is petition. So A, we have freedom inside right? As we can do protest right? We have freedom to do it. For C Internet censorship, it will block the freedom we do not have freedom to get access the internet right? So no freedom. And D, petition? Are Controlled, government controlled the opinion, what opinion to be given, what not to be given So the people may not have freedom. We can connect them with the word freedom, so that's why Hamza put the three things together. Okay? This is making sense. Any other ideas to seek the common features? Hatim do you have ideas?	228

In the first dialogue line 222, student B understood the instructions and illustrated "Mass incidents, people have freedom. Internet censorship people don't have freedom and petition people also don't have freedom."

To claimed this, the student should had located the concept attributes such as

A: Mass incident, **people** did **protest** because they found their **freedom** was hindered; C: Internet censorship, **internet users** had **limited freedom** to **assess to certain websites**;

D: Petition, people did not have **freedom** to **express all the opinions**

The words **bolded** were the concept attributes and the **bolded word with underscore** was the concept attribute with critical common characteristics which link the different issues together, it was the word **freedom** which facilitated students to attain the concept in the last anchoring session in the lesson.

Attaining concept by CC- Contribution and Collaboration with reasoning

Teacher:	Okay, this one, you are hiding something; you are hiding something; you are nto hiding something, not hiding something, right? How to name it? Explain, for example B corruption is hiding the crime	330
Student D:	hiding the crime	333
Teacher:	C is hiding the truth	334
Student D:	Hiding the truth	335
Teacher:	And then A is not hiding the truth and D is not hiding the truth because it receives opinion, so what is the name of this group.	336
Student A:	ehhh	338
Student B:	Hide and seek.	339
Student M:	Hide and seek	340
Teacher:	(giggle) Hide and seek? Why, why. Give me reason why. What is “hide” and what is “seek”? (Three students speaking at the same time B, A and M)	341

The concept “hiding and seek” was attained by at least three students by their own contribution. In that anchoring session, students were required to give concept labels on the grouping they gather in the previous session. The word “hide and seek” was genuinely created and given by two students (student B and M) at the same time while student D mentioned “hiding the truth” just before hand. It is observed that this strategy allowed students to create concept label according to what they thought and believed, instead of following teachers thinking or agenda. The teacher was open to every possibilities of naming from students by asking an open question (*line 336*). After he received the

concept labeled from students, he giggled. This could be interpreted as he was really curious and interested for why student named it as “hide and seek”, and he followed up by asking for the reason by asking what meant “hide” and “seek” (line341).

This showed that the strategy also allow student to contribute the concept label with reasoning.

Students had given explanation by illustrating why the grouping was name as “hide and seek”:

Student A:	Because it is looking for the information	34
		3
Student B:	Yup, ya	34
		4
Student M:	Ya	34
		5
Teacher:	So what are seeks?	34
		6
Student A:	People seeking the truth	34
		7
Student B:	The government is hiding the truth	34
		8

It was important to notice that the reasons were given through collaborations. Noted from the above dialogue, student A and B had given explanations on the same naming “hide and seek”. Also, it was responded by student B and M saying “Yup” and “Ya” to show agreement verbally. This illustrated that the concept was not contributed by the student alone; it was of collaborations of students and they attained concept through interactions and dialogues with other classmates.

In summary, as illustrated from the lesson study, it was observed that the Qu:Est model implemented in the lesson facilitated students’ concept attainment by recalling, preparation for concept attribute and critical characteristics and promoting their contributions and collaborations with reasoning. As a result, students had successfully attain two concepts by naming the groupings namely “hide and seek” and “government’s good and bad”.

4.1.3 The challenges in concept attainment

Three major difficulties in concept attainment were observed through the lesson study and interviews.

Discussions were as followed.

Difficulties in grouping with common critical characteristics

Student A:	Corruption and petition (students voice is not very clear)	215
Teacher:	Which two?	216
Student M:	Corruption and internet censorship, they block the information so others may not know about it.	217
Teacher:	No, this is just linking the things to the events but not the things of concepts. It does not show common characteristics. That is not a grouping. (Silence) Hamza do you have idea? Guys, back, listen!	219

For the first dialogue by Student M, it was clearly seen that the students were trying to link the two concept with cause and effect by saying *“they block the information so others may not know about it (line 217)”*, to prepare students attain concepts, the teacher explain to the student that they were to recognize the common critical characteristic in order to group the issues together with concepts, *“No, this is just linking the things to the events but not the things of concepts. It does not show common characteristics. That is not a grouping (line 219).”* said the teacher. It was discovered that the students were not used to group the concepts together by connecting them with common characteristics. Instead, they would rather link the events together by story-telling such as expecting what influenced next and what happened afterwards, which was descriptive. There was a gap between students’ performances (descriptive connection) and teacher’s requirement (analytical connection). However, it was discovered that students realized the difference and did better after teacher’s demonstrations by doing on grouping as illustration. It could be concluded that the students possessed the capability to group the issues together by locating the critical common characteristics analytically, while clear instructions, demonstrations and support from teachers were required to allow student to familiarize to do the grouping analytically.

Interviewer:	Label this group so for example group number 1, and then you are to label this right, so what?	51
Student B:	Government do right thing and at the same time do some bad things	53
Interviewer:	OK so you will say do something good and do something bad, but the thing is you don't know how to mention...? So maybe I can share you the word – performance. And then whether it is good or bad, you can explain afterwards, because when it comes to the administration, you can say the performance is bad, so when you use the word performance, how the government perform, you are already summarizing the thing ...	54

Dipole VS one dimension- The synthesis was yet to come

After revisiting carefully all the concept labels suggested by the students such as “hide and seek”, “negative side of the government”, “government’s 50/50” and “Government’s good and bad”. It was discovered that ALL of them are di-polar labels, in which two separate, opposing words are used to name the grouping they suggested, e.g. Hide versus Seek, good versus bad and 50 versus 50. One exception was the “negative side of the government” yet it failed to include the good side in the grouping which the student agreed. This challenge was also shared in an interview B. The interviewee (student B) reported *“At that time I was just thinking good or bad. If I want to elaborate with only one word, I don’t know how to do it (line 41)”* This showed that there were difficulties for student B to summarize and transfer the di-polar concepts into one dimension. Then the interviewer, who was also the teacher of the lesson study, had suggested a word for the concept label which unified the di-pole and pointed a dimension along which the value could be changed. The dialogue was as followed.

Taking a dialectical approach in a Hegelian sense (Rescher, 1977), the dipole could be understood as a thesis and the antithesis. When the word “performance” was used to unify them, it was a synthesis. The level of concept attainment was higher when that synthesis was achieved; suggest by Rosie (200)

that when an initial thesis meets opposition or antithesis, the resolution of this opposition is a new thesis or level of understanding.

To sum up, although the students were able to summarize the grouping with concept labels using their own words, student did not achieve the higher level of understanding by synthesizing the opposing dipoles. Further investigation of the students' synthesizing abilities in naming concept labels was suggested.

4.2. Do the concept attainments via Qu:Est model enhance students' self-authorships? How?

Two interviews have been conducted after the lesson study. This part starts with the introducing of the two interviews, followed by a summary explaining how the lesson study enhanced students' self-authorships.

4.2.1 Findings of the interview A

The interview basically raised two major questions with follow-ups showed as followed:

(1) What is the specific challenge in learning you faced in the lesson?

(2) Do you think the concept learnt in class related to yourself, why?

Student A was initially questioned about the specific challenge he encountered in the lesson. There were two challenges shared. Firstly, he stated that it was challenging to raise his own idea when similar idea is given by other students.

Student A:	It was a challenge as some students was giving some opinions that I am going to give. Like, same way of thinking with other students.	19
Interviewer:	Um... Same way of thinking. Okay, for example, what is the thing they mentioned already and you are not going to say.	21
Student A:	It was about "hiding the truth" about the government, I was going to say that but then like it was already given.	22
Student A:	There are different kinds of situation mentioned like corruption, the government they don't want to show the negative side, that my way of thinking. They are corrupted.	29
Interviewer:	So "as they are corrupted "so they don't show the negative side. So this answer shows a little bit difference with the other student's right?	32
Student A:	Yeah, it doesn't want to show its negative side and what my classmate said was "hiding the truth"	34

While other classmates suggested the concept label "hiding the truth", student A possessed his own concept label -"negative side of the government". However, he did not share the idea, thinking that answered with similar answers had been raised. He believed that there was no need for him to raise

his answer. The interviewer followed up by stating the existence of the differences between the two concepts and students explained his thought as followed.

Interviewer:	Okay, so I see like “hiding the truth” and negative side they are different wordings. So what made you stop raising the idea? It means that “oh no they say “hiding the truth” but I may say “negative side”. But you don’t, so why don’t you raise your point?	36
Student A:	I don’t raise the point because it is almost the same saying of “hiding the truth” and it means almost the same thing. So I am thinking to say something else but I don’t know what to think of.	40
Interviewer:	So you want to think something else.	43
Student A:	Yup.	44
Interviewer:	So what is your feeling when your point was already given?	45
Student A:	I kind of felt, like, it was something to get to....	46
Interviewer:	How do you feel?	47
Student A:	I am thinking just like... let them have it... let them have it and maybe I can get another chance.	48

Table 4.6 dialogue of extract of interview A (2)

Student A explained that in *line 40* and *44* that “negative side” was a similar idea with the other students and he thought he should raised his point when he possessed different ideas, when “*thinking something else (line 43)*”. And about his feeling, he commented that he would “*just let them have it (line48)*” and he would tried when he got another chance. It is observed that student A estimated chance was limited with some sort of reason. A possible explanation, according to the dialogue, was that student believed that the teacher expect correct and answers, rather than various possibilities and participations from more students, that he gave up his voice.

However, when he was asked to compare and evaluate the two answers (*line 50*), he believed that his answer was elaborating more the situation than others (*line52*). He admitted that it was a better and comprehensive way (*line 58*) to address the issue. Interestingly, he remained not providing a better answer, believing the answer would probably be shared in the next lesson (*line 64*).

Interviewer:	Okay...so now we name the concept again, which wordings will you choose? “Negative side or “hiding the truth”.	50
Student A:	I would say negative side as it is elaborating more on the situation cause “hiding the truth” is just thinking on the same line, but “negative side” has more details on the statement.	52
Interviewer:	So you believe it has more detail and it is more elaborating than just saying “hiding the truth”, so do you believe “negative side “ is more comprehensive and a better way to explain the issue?	55
Student A:	Ya, Yes I think it’s a more better and a comprehensive way to get the issue cause actually that’s one of the easier ways to answer it than just saying “hiding the truth” coz if you say “hide the truth” you will be asked to elaborate more.	58
Interviewer:	So according to you, why don’t you give a better answer then just leave it?	62
Student A:	Well, all the answer was already given so I think probably its gonna, maybe used later, may be another answer, maybe I can use that point in the next lesson.	64

Trusting the internal voice:

Epistemologically, it was discovered that student A trusted his internal voice. He had his own voice when the he was to label a concept. He had his own answer (naming the group using the word “negative sides”. It was also shown that he trusted his internal voice as when the interviewer asked him to compare his answer with other student’s, he was able to evaluate two with reason, believing that negative sides had more details on the statement (line 52). The explanation of the trust of the internal voices was important, stated by Baxter Magolda (2008) that learning to explain the trust with reasons prepares a person to build the internal foundation on the journey of self-authorship. In order words, student A had build confidence on his internal voice by explanations of his trust. This also supported him to connect the internal voice with the external events. Sufficient trust built in his internal voice would foster him to move to the next phase to build an internal foundation for the self-authorship belief system.

Despite his trust in his voice, there were several challenges lying ahead for student A to develop self-authorship, illustrations were as followed.

Not contributing own ideas in the lesson:

Even though student A possessed his own concept label and believed that his interpretation was more comprehensive and it contained more details (*line 52*) than the other's idea "hide and seek" suggested to the teacher, he did not contribute in the class. He claimed that the answer was similar and he would rather "*just let them have it (line 48)*", mentioning the chance of answering the teacher's question and he would wait for the next lesson (*Line 64*).

This could be understood that even student A was confident with his answer; he did not want to confront or establish variation with the other classmates. He did not view his participation as a possible contribution to the teaching; instead, he viewed teacher's final decision as a final say. He therefore prepared to say nothing afterwards when the teacher "approved" or agree with the previous answer stated by his classmates. In Baxter Magolda's words (2008), it showed that student A was of inadequate awareness and acceptance of uncertainty and multiple perspectives; shift from accepting authority's knowledge claims to personal process for adopting knowledge claims

Relying on external formulas

According to Baxter Magolda 2004, a person was still influenced by the external formula when a person maintain interpersonal relationship by doing what will gain others' approval. During the interview when Student A shared his second challenges about the difficulty in grouping.

Interviewer:	Okay, so now let's back to the idea of grouping because I notice that according to your ideas, you receive some experience, about challenging experience of grouping right? What do you feel when you face this kind of challenge.	67
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Student A:	May be I am not quite concentrated. Maybe the concentrated is needed more...like if the teacher has already explained it and I wasn't listening and probably that's the problem how I didn't know how to do it.	71
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Interviewer:	So what did you do to cope with this challenge?	74
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Student A:	So I stopped talking to another student - Usman. I was paying more attention and I was starting to get the idea of how to work it	75
..... (Dialogue continued)...		
Interviewer:	So what is the challenge?	89
Student A:	The challenge was trying to point out the similarities coz um maybe some of them are even out of topic , so you should work like think harder and how to answer the questions.	90
Interviewer:	So what do you think it's hard and out of topic?	93
Student A:	I think let's say talking about corruption and I came and say that about If the corruption and the government stop the websites, the foreign website because of corruption something like that and that was out of topic and that was going to be confusing.	94
Interviewer:	Yes, agree as it was just linking the things together but not using the common terms. Okay, and then, how do you face this challenge , how to solve the problem?	98
Student A:	How to solve the problem, was just concentrate in class and note down whatever being said and taught and also like try to understand Know more is understand more, why? , even think more than ,let's say corruption, not only looking on the blackboard but you also gonna think in another way. So you can get more understanding and what the situation is.	101

He thought the difficulty appeared mainly because of his lack of concentration and participation in class. Student A believed that the difficulty was deal to his problem and the way to overcome the challenge was to focus and concentrate in class. Following his idea, the student believed the teaching and instructions would guarantee him to understand more but he did not consider the way of learning, meaning that how to comprehend knowledge may also affect his performance in acquiring knowledge. Therefore, it was considered that student A was still relying on gaining other's approval; rather than recognizing the need to bring own identity into constructing independent relationships (Baxter Magolda, 2004). When student A was away from the external formula to the journey of self-authorship, he would not only blame his behavior in class, but also think of how to make sense with the concepts and materials provided by teachers and his classmate and establish his own understandings.

“How does a concept relate to me”

Student A:	Uh, um, no.	144
Interviewer:	No? Why?	145
Student A:	Because like I was not related to whatever they are doing. Like what taught was internet censorship, corruption, mass incidence and petition, like they were not related to me cause firstly we were not in the same environment of what the other people learning and what they were facing, like this problem they faced in China. I stay in Hong Kong so I don't relate them to what happening to me.	146
Interviewer:	So, what are the possible reasons for you to learn this concept, do you think these concepts are important to you?	152
Student A:	I think the concepts are important on us. We will get more education on the country and we will get to know more about what the country was doing and not doing to the people.	154
Interviewer:	You use the word “country”, is this a general sense about like what a country should be, or you are specific thinking about China?	157
Student A:	I was thinking China mostly because it mostly... this topic was mostly going for China, and all these stuffs were about China.	159
Interviewer:	So if I rephrase, does it mean that you believe that although the concepts are not related to yourself, but learning these especially the China thing is important for you?	161
Student A:	Yes because by learning them, we will have more knowledge about China.	164
Interviewer:	Does the knowledge about China related to you?	165
Student A:	The knowledge is related to me coz I am in Hong Kong and Hong Kong is in China. Mostly we would like to know more about China is the dirty side and the clean side, what was doing negatively and what was doing positively and maybe we can see the difference comparing to other countries.	166

The lesson was about modern China and student A thought that the concept was not relevant to him, thinking that he was living in Hong Kong and the environment was greatly varied with China. However, when the discussion move to the reasons of studying these concepts, he reported that the concept learnt facilitated him to “get more education on the country (line154)” and such knowledge was related to him as “He was in Hong Kong and Hong Kong was in China and he could see the difference by comparing China with other country (line 166)”. There seemed to be a contradiction as he first viewed the concept taught of China was irrelevant to himself but he claim such knowledge was related to him in the end.

He claimed that it is irrelevant when he considered himself with an identity as a person living in Hong Kong where was different in China. However he discovered that the knowledge was related to him when he understood that the knowledge could help him to know more about other countries by comparing it with China. This showed that Student A would able to view the concept with more multiple-perspectives when he was aware about the difference and made use of the difference to learn. He would develop his self-authorship better if he continues to take the opportunity to embrace the differences to learn and ensure his specific identity, not following the external formula of the world.

4.2.2 Findings of the interview B

The interview started with similar ways of interview A by asking student to share the challenged faced in class. However, the first half of the interview was about the difficulty of grouping the di-pole concept and to unify them with one word, which was related to the concept attainment mentioned in

Student B:	Just... get help from the teacher
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62

the session 4.1. The second half of it was about self-authorship and the findings were as followed.

External formula - depends on working alone or collaboration:

External formula represent the instructions and structures externals that confine a person to be following the external or world, instead of being loyal to the internal voice. For student B, when it he was questioned the way to cope with the challenges, he answered:

Interviewer:	How to get help?	63
Student B:	Ask the question, what should I label to this group	64
Interviewer:	Can you ask in another way to show the same meaning? For example right now, now it's the situation	65
Interviewer:	Did you ever thought about not asking in this way? In an opposite like I want	78
Student B:	I can't understand this situation so can you help me?	67
Interviewer:	Can you ask the question and I think of the answer	68
Student B:	Ya, sometimes, like you challenge the truth of the answer so sometime I do	80
Student B:	He will teach me how to handle this	81
Interviewer:	So, in what situation will you do that?	81
Student B:	When everyone is not speaking	82
Student B:	When the teacher explains and the answer depends on the other's situation?	83
Interviewer:	Depends on if the teacher is asking the question? Or?	
Student B:	When I want to do on my own	84

The student was expecting the exact answer, meaning that he believed that there was an absolute answer for each questions prepared by the teacher. This was a clue that the student was relying on the external formula instead of treasuring to think and explore an answer individually.

Sometimes I do on my own

However, he reported that he would like to do on his own in some situation via the dialogue below:

Student B stated that he would like to do on his own when no one was speaking and the teacher challenged the truth of the answer. When no one was speaking, probably it means that the teacher is expecting an answer and the student may want to fulfill the requirement of the teacher. From the answer "*When I want to do on my own (line 84)*", it was discovered that the enhancement of the self-authorship did not only depend on the setting of the questioning design but also the extent of the willingness of the involvement of the students in certain activities. Therefore, further research was suggested to investigate how the questioning design or activity can enhance student's willingness in involving in the lesson, so as to enhance their self-authorship.

Teacher challenge the truth of the answer

It seemed that Student B had more motivation to do on his own when the teacher challenged the truth of the answer, as shown from the above dialogue.

What did “Challenged the truth” mean to student B indeed? It was a pity that the interview did not clarify. There were two possibilities. Firstly, a teacher could challenge and criticize the original answers and possesses his own answer as the “real truth” which is another absolutely right answer for his students. Or, secondly, the teacher could challenge and criticize the original answers with logical reasons but did not have any idea for a concrete counter answer. If the student understood in the latter way, the teacher could had successfully demonstrated a student that there was not an exact answer for the questions, which helped students to leave away from the external formulas and developed their own self-authorized answer. When teachers challenge the answer, would multiple

Interviewer: So when you are doing together? What would the situation change? Or no	87
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perspectives be promoted and student’s epistemology will be more flexible when students were trained to challenge the truth of the answers? Further investigations about challenging the truth of the answer were suggested.

The differences in collaborations

	change?	
Student B:	I will just get help from my friends	89
Interviewer:	So let's back to the case of this class, can you get help from the friends from your school mates today's lesson?	90
Student B:	Yes	92
Interviewer:	How?	93
Student B:	I am doing my work and suddenly my friend is answering the question.	94
Interviewer:	Who is helping?	95
Student B:	Mingsu , he was answering to the question, answering to their questions so I heard that and I answer his answer	96

The Interviewer questioned student B for the possible difference when he worked collaboratively.

Student B admitted that he got help from his classmate who had responded teacher's question with an answer that he agreed (*line 92 and 94 below*).

Although the student did not stated the benefit in the interview, from the observation in the lesson, it was discovered that the collaboration help the two students to get to the similar way of thinking with dialogues and echo. Students showed agreement when one of them gave the label of a concept in the labelling session. They also felt the sense of togetherness and agreement from the verbal response.

Comparing following teachers or “do on my own”

Students were request to compare the differences between following the teacher’s answer or do on his own. The dialogue was as followed:

Student B:	Do by my own, I think it may be it is wrong, or it is right, I think maybe I am just wasting time to do wrong things I can just ask the teacher, what is the right answers	122
Interviewer:	So if, by teacher, what is the result?	125
Student B:	I don’t know how to answer this question	126
Interviewer:	So I rephrase your answer it means that if I think of my own, I have to judge whether it is right or wrong; while if it(the answer) is from teacher, definitely it is right	127
Student B:	yep	130

It could be summarized that the students did rely on the teacher’s external formula to gain safety in learning, despite any possible benefit by doing on his own. He also believed that the teacher’s answer was always a definite one to follow. Student B was further questioned about which answer he would chose to use in an exam by comparing answers provided by the student’s collaborations and the teacher’s one. He answer that he would use the teacher’s one to possibly impress the teacher, while he said both answers was acceptable when it was in a public exam, when the teacher was not the marker of the exam. From his response, it was discovered that he had confident in both student’s and teacher’s answer in reality when the teacher did not involve in the marking.

4.2.3 Summary of the findings in interview A and B about self-authorship

The result of the interviews showed that the students possessed some elements that allow them to develop their self-authorship. However, they faced certain difficulties which hinder their self-authorship to grow more mature. Elaborations are as followed

Student trusted their internal Voice

Students possessed self-authorship. The most important reason was that there trusted their internal voices. For instance, student A trusted in his own answer and evaluated with reasons to demonstrate

how different his answer with the other student's was. The trust did not appear only as an instinct but also bolstered with clear reasoning. The explanation with reasoning also showed that his internal voice was developing more maturely. For student B, it was discovered that he carried his own thought and was able to develop his own idea even when others had answered in another way. This showed that he could follow his thinking with his internal trust.

Did not aware to collaborate

What were the obstacle hindering their development of the self-authorship? One of the elements was the lack of awareness of collaboration. In interview A, student A had his own idea in one of the concept label. However, he did not voice out and share. The reason was that he did not think the sharing is important and he thought that the questioned was already answered. In interview B, student B also preferred to listen to the teacher and get an exact answer as it was most convenient and easy for him; despite he did enjoy some of the benefit in working with his classmate.

The lack of collaboration also indicated that their intrapersonal and interpersonal dimension of self-authorship were rather weak.

In the intrapersonal dimension, they did not realize that they possessed an identity in class. The identity was that to give and take. Students were expected to collaborate in learning by sharing their thoughts and listen to others idea. Instead, they believe it was the teacher who told him everything and his responsibility was to listen and digested by the teacher, not the students, which is wrong.

Interpersonal, they did not view their students and friends as teachers and learners. They did not develop an idea that they can teach and learn from each other. For instance, in the interview A,

student A did not share their idea because he thought that the chance to answer the teacher question's was limited. Adding his idea after other students answered the question may not benefit them but took away their learning opportunity instead. Therefore student A gave up the chance and just said *"Let them have it and I will take another chance (interview A line 48)"*.

Immature Epistemological thought

Students immature epistemological thought was another reason that hinder them from developing the self-authorship. It was immature in a sense that they kept on assume that knowledge was always absolute, accurate and exact. For instance, they believed that teacher was always demonstrating the absolute answer in class and they relied on teacher's answer very much. For instance, student A did not share his thought because teacher had already discussed the answer given by other students. Perhaps he did not aware that there could be two possibility accepted by the teacher as the same time. When his challenge was shared, the only solution he thought about was to concentrate and listen and to try to understand the teacher again. He had never thought about it could be other reason other than his attention concentration that affect his understanding. One possible reason was that he assumed that teacher's instruction was not to be challenged. For student B that was more obvious as he believed that the teacher would gave him exact answer and explanation even they were asked to do group discussion and share their thoughts. He viewed that the group discussion was less efficient and time consuming. This meant that he believed that what he would gain after the discussion was just what the teacher told him. Believing that the gain from discussion and directing teaching from teacher had no differences, he thought that teacher's directing teaching would be more efficient and effect for him to learn.

External formula

It was discovered that students did not further grow more maturely in the three dimension of self-authorship mainly because they were bounded by the external formula. The external formula basically appeared in two ways in this case study.

Teacher as a higher authority

One of the external formulas was the teacher, or more precisely the authority from teacher. Students did not believe in their classmates' answers but teacher's one. One of the reasons was that teacher was more experienced, more knowledgeable that his answer should be more trust worthy. When the trust of answer was out of the authority, the development of student's own reasoning may be negatively influenced. They would also get accustomed to reply on teacher's answer instead of develop his own point of view or even his thinking and reasoning system, which is a crucial element to further develop self-authorship.

Learning culture

The learning culture included the way of teaching and learning. In teaching, students often received didactic teaching and answers always appeared to be exact right or wrong defined by teacher. In learning, students needed to fulfill the requirement of examination and assessment. In some discrete traditional subjects, marks were given only when the exact answer was given. Other perspectives and elaborations contributed no marks. In such environment, student would easily be influenced that there were only exact right or wrong and the only way to succeed was to follow the rules and instructions. Rules and instructions which are the explicit external formulas hinder them from

developing their own viewpoints and belief systems. Their self-authorships were therefore not growing more maturely.

Far away from building internal foundation

Students did trust their internal voice which contributed them to the first step in developing self-authorship. However, it was discovered that due to the existed external formulas, the three dimensions namely epistemology, intrapersonal and interpersonal dimension was negatively influenced from developing, as stated above.

Explained by Baxter Magolda (2008), the three dimensions would connect and grow more holistically when the journey of self-authorship leaves the first phase (trusting the internal voice) to the second phase (building internal foundation). Can the Qu:Est model facilitate students to further develop in the next phase? It was discovered that the key was to support and encourage class collaborations and to remind and re-emphasize their class ownership in teaching and learning. Further research is suggested to investigate how Qu:Est model could be instructed in a more collaborative way.

Chapter 5

Discussion and Conclusion

In the last chapter, several aspects which were interesting and worth to further research had been briefly mentioned. This chapter would review those aspects and point out the significances of those findings and ended with a conclusion of this research.

5.1.1 Challenges discovered in learning a concept

Stated in Chapter 4 .1.3 Dipole vs one dimension, it was discovered that there was a gap between labelling the concepts with dipole wordings and a word which unified the idea with one dimension. Students had difficulties in doing the latter part. To unify the idea with a dimension, it requires student's ability in understanding the dipoles and summarizes it with a new word. For example, about the concept mentioned: government's good and bad. It should be understood in a way that the government was performing in a good way and a bad way, then the word performance could be utilized and to unify the idea of good and bad, such as performance (+) (-) , the positive and negative sign represent the good and bad side.

This synthesis is important for student to further develop their conceptual framework. It is a useful skill for them to digest the concept learnt with better connections. Considering that there was a gap in students learning regarding this concept unification (meaning that from a dipole to a unified concept) , further research is suggested to enquiry in what ways can the questioning skills facilitate students to build concept from a dipole to a unification.

5.1.2 Challenges in collaborating in class as a group

Another dimension was that student did not aware the significance in learning through collaboration despite they enjoyed some benefit such as receiving encouragement and agreement from students or learn from the others. It was discovered that students were more motivated to answer questions raised by teachers in class then doing discussions with peer groups. Considering that learning collaboration facilitating their learning as well as their formation of self-authorship, further research is also suggested to investigate how could Qu:Est model be instructed in a more collaborative way which enhanced student's motivation to participate in groups and contribute.

5.1.3 External formulas hinder self-authorship development

Lastly, it was discovered that external formulas was the major reason that hinder students to develop their self-authorship to obtain an internal foundation. External formulas included the authority of teachers and also the learning culture had prevented students from exploring their own way of learning and motivation in seeking for their own answer for their own enquiry. They often rely on teachers' answers instead. To foster students to promote their self-authorship to the next level, meaning to build an internal foundation after the trust of the internal voice is mature enough, and further research is necessary to find possible methods in minimizing the external formulas exerted on students.

5.2 Conclusion

In conclusion, the Qu:Est model was able to facilitate student's to attain concept through allowing them to name the concepts learnt with concept label using their own words. However, students named with words that are dipoles. They had difficulties in using precise wordings to unify the dipole concept into one dimension. Further research was suggested to investigate this gap to facilitate students to achieve such unification in concept attainments.

Regarding self-authorship, it was discovered that Qu:Est model enhance students' self-authorship through providing rooms for student to use and believe their own answers which is an internal voice. However, there were external formulas including teacher's authority and the learning culture which hinder them to further bring their self-authorship to the next phase namely internal foundations. Evidence included student did not prefer to learn in groups and shared their own opinions when the questions were answered by others already. Further researches are suggested to investigate how to minimize the influences of the external factors and promote collaborative learning in using Qu:Est models.

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Appendices

Appendix1. Principal consent letter

THE UNIVERSITY OF HONG KONG

Faculty of Education

21-3-2014

Dear Miss Ho,

In what ways can the Qu:Est model in the teaching of Liberal Studies enhance students' self-authorship

As part of my B.Ed. degree I am required to conduct a small-scale study of my teaching. This will involve a double lesson as teaching lesson study using questioning strategies and 2-3 interviewees having pre and post interviews (semi-structured, about 20-40mins each).

According to the University's policy on the ethical conduct of research, I am writing to ask your consent for these procedures.

I will make sure that the information students provide to me will be treated with the utmost confidentiality and anonymity. Students' participation is voluntary. They have the right not to be included in my analysis, and if I find out that a student does not wish to be included, I will act according to that wish and not include the student. They can also choose to withdraw from the study at any time without negative consequences. The teaching and interviews will be audio taped while they have the right to review and erase the tapes. The information collected will only be used for the dissertation and will be destroyed or returned to the school after the dissertation grade has been approved. The audio file will be stored in a laptop that I work for the dissertation in that period. To ensure the safety of the information, the laptop requires a password to gain access. All audio recording will be destroyed after the completion of the research project. The interview will be conducted during lunchtime or after school within school campus. The participants have the right to review it and erase part of or entire recording.

If you agree to these procedures, please sign one copy of this letter and return it to me. If concerns arise about this aspect of my work, please feel free to contact me (tel. 9286-5549), or my supervisor Dr. Ki Wing Wah of HKU faculty of Education (tel. 2859-2537). If you have questions about your rights as a research participant, please contact the Human Research Ethics Committee for Non-Clinical Faculties, HKU (tel.2241-5267).

Yours sincerely,

Wong Man Yin

Liberal studies

Faculty of Education

The University of Hong Kong

Appendix2. student consent letter

THE UNIVERSITY OF HONG KONG

Faculty of Education

21-3-2014

Dear Students,

In what ways can the Qu:Est model in the teaching of Liberal Studies enhance students' self-authorship

As part of my B.Ed. degree I am required to conduct a small-scale study of my teaching. This will involve a double lesson as teaching lesson study using questioning strategies and 2-3 interviewees having pre and post interviews (semi-structured, about 20-40mins each).

According to the University's policy on the ethical conduct of research, I am writing to ask your consent for these procedures.

I will make sure that the information you provide to me will be treated with the utmost confidentiality and anonymity. Your participation is voluntary. You have the right not to be included in my analysis, and if I find out that a student does not wish to be included, I will act according to that wish and not include the student. You can also choose to withdraw from the study at any time without negative consequences. The teaching and interviews will be audio taped while you have the right to review and erase the tapes. The information collected will only be used for the dissertation and will be destroyed or returned to the school after the dissertation grade has been approved. The audio file will be stored in a laptop that I work for the dissertation in that period. To ensure the safety of the information, the laptop requires a password to gain access. All audio recording will be destroyed after the completion of the research project. The interview will be conducted during lunchtime or after school within school campus. The participants have the right to review it and erase part of or entire recording.

If you agree to these procedures, please sign one copy of this letter and return it to me. If concerns arise about this aspect of my work, please feel free to contact me (tel. 9286-5549), or my supervisor Dr. Ki Wing Wah of HKU faculty of Education (tel. 2859-2537). If you have questions about your rights as a research participant, please contact the Human Research Ethics Committee for Non-Clinical Faculties, HKU (tel.2241-5267).

Yours sincerely,

Wong Man Yin

Liberal studies

Faculty of Education

The University of Hong Kong

Appendix3. Transcriptions of the lesson study

Date: 28/3/2014

Duration: 66:54 (Minutes)

Venue: IKTMC 6/F Classroom 601

Speaker	Content	Lines
Teacher:	So today lesson starts now. So guys I want to share you something about the lesson today. It's about modern china, some concept we learnt before. (Teaching showing the powerpoint, include some pictures that the students take part)	1
Students:	Yes Sir! Woaaaaow (excited about the picture)	4
Teacher:	So can anyone tell me what the picture is about?	5
Student G:	Li gang	6
Teacher:	Li gang, what is the case about?	7
Student B:	Some problem inherited...	8
Student G:	(interrupted) About someone kicking someone and he is free from jail.	9
Teacher:	So why he was free from jail?	10
Student G:	Because his father is Li Gang	11
Teacher:	So what is the thing related to the thing we studied.	12
Student E:	(interrupted, pointed at the gesture about the picture) What is the meaning of this	13
Teacher:	Okay, it means that his kind of pride and he was free from jail. Basically we study this because of corruption, remember?	14
Students:	Yeah.	16
Teacher:	(Teaching continuing with the next slide) Next, Okay, so what is this	17
Student B:	China...	18
Teacher:	China, petition, so what is the petition, last time, uh we talked about the letter, so the (mentioning the picture taken) it is the letter right? So when to letter go to the government	19
Student G:	(Interrupt) Sir! Who is this (inside the picture)?	22
Teacher:	It's Hatim (most of the class laugh) Okay, it means, suuuuh, so this is petition it means letters, opinions from people to the Chinese government, remember? We mentioned it a few days ago. Next one? Who is this?	23
Students:	Rahul and Sanaula!	26
Teacher:	So what are they doing? They are bribing right. So basically it is under the idea of corruption. So when you pass others the money to (request them) does something favorable (to you). Okay, the next slide, it's not a photo, what's this?	27
Student G:	Solution of corruption!	30
Teacher:	Yeah, a mind map about the solutions. Yet I don't see a lot of answer but a big name there. So these are the thing we studied in these two months, so before the examination, I want to make all these ideas into some important concepts that you can organize it. Now, the information I gave you just now, are related to all these four topics together. (Starting to write on the blackboard to fill in boxes) What are they in the boxes, tell me. What is the first one?	31
Student E:	Mass incidents	37
Student G:	(following the next point) Corruption	38

Student A:	Internet censorship and pe...pe...pe...petition	39
Teacher:	What is that, that's petition, right? Now, there are some... I want to recall some of your information there, okay, guys, let me show you first. We have all studied mass incidents yesterday, we have done corruption long time ago, and we had internet censorship, and at the same time some petition.	40
Student B:	Yes	44
Teacher:	So now I want to show you how to recall the information. Now, come, come, come come, come, listen. Here are four brackets; I am going to do one of them to show you how to do it, and ultimate you try to finish the three.	45
Student A:	Sir, everyone do one or all do together?	48
Teacher:	Everyone... okay, maybe everyone do one and then we share, okay? So what are the stakeholders in petition? Petition involves the Chinese people, right? (Writing on the board) and then Chinese people as they send their opinion to the government right? So these are basically the stakeholder involved. So why is there petition? There is petition because the government "want" to collect, here I use the quotation (") because it is not true, the opinions from the people. Then guys, what are the impacts for petition? As petitions means what? Petitions means a person wants to deliver some opinion to the government and they receive it. But at the same time, whether the governments receives or take actions, it depends on itself.	49
Student E:	It sucks.	58
Teacher:	It is therefore not depends on the people. The power is from the government. (Students are being divided into group) Okay so now these are the possible things. So now Billah, Shoaib and Mingsu...	59
Student G:	We do corruption.	62
Teacher:	Okay you three do corruption.(Teaching assigning the other three students) And you three do internet censorship. Hamza and Usman, you two do mass incidents.(Students doing group discussions)	63
Teacher:	(Teaching assigning the other three students) And you three do internet censorship. Hamza and Usman, you two do mass incidents. (Students doing group discussions) (Giving more instructions) So what are the related cases? Okay I give you one example, for example corruption, remember the picture I showed you, who is the boss?	66
Student G:	Sanaula (a student of them who was in the picture)	71
Teacher:	No, it's Brian, I am talking about the first picture, the case of LiGang, so this case is actually an elaboration of corruption because they bribe the government. So, what? Ligang son can free from jail.	72
Student E:	LiGang's son was free from jail.	75
Teacher:	Yes, it is the case of LiGang. LiGang's son was free from jail. It was interesting but we never know who the name of LiGang's son was. Okay, let's have a discussion for three minutes. (students discussions for 3minutes) Okay let's write down what we have on the blackboard, now for the mass incidents. What are the related cases?	76
Student E:	June 4 th incidents!	82

Teacher:	June 4th incidents is not. Oh no, you are right that's a good point. (Silence for a minute)	83
Teacher:	Are there any protests happened on China you know recently?	85
Student A:	Milk...milk problem in China.	86
Teacher:	No those were problems in China, not mass incidents. Okay, anyway, June 4 th incidents. It relates to the concept like... ah... protest? Guys, remember we mentioned it can be physical and non- physical?	87
Student B:	Yes, so it can go online.	90
Student G:	Sir, internet censorship.	91
Student E:	Yes, online.	92
Teacher:	Okay any other related concept you remember about our discussion last time? What did you remember? Who is involved?	93
Student G:	Public.	95
Student W:	Yes very good, public.	96
Student B:	The government.	97
Teacher:	Yes the government and politicians. Why are there mass incidents?	98
Student G:	Public voice out their demands	99
Teacher:	Yes, voice out demands, okay what are the demands?	100
Students:	Freedom	101
Student A	Freedom of protest freedom of speech freedom of rights.	102
Teacher:	So freedom, and then why they have to use the mass incidents to voice out their demands?	103
Student A:	Because it's a positive like it's the way to voice out the problem.	105
Teacher:	I heard that it is the power from the people.	106
Student A:	Like they are using their power, pressure.	107
Teacher:	Okay pressure from the people as the power, right? (Writing on the board) It means the people put pressure on the government.	108
Student A:	So that that one can raise public voice.	110
Teacher:	For example, like it could be something violent, it could be message like just a letter to the government, so there are different ways to voice out . So another reason is to warn to government. Okay, move. Now , corruption. The cases are like, Li Gang's son any others?	111
Student E:	Nail houses!	115
Teacher:	Okay, nail houses, a case we studied before right?	116
Student G:	Yes, people the politicians they pay a huge amount of money to do something unfair to others like public?	117
Teacher:	Paying a lot of money, to what?	118
Student G:	To do something unfair.	119
Teacher:	Okay. Guys what means doing something unfair?	120
Student G:	Such as violent.	121
Teacher:	Okay, unfair to who?	122
Student G:	Public Public Public	123
Teacher:	So in case of the nail houses, what is unfair?	124
Student A:	The government what to pay the people to leave their house.	125
Teacher:	This case is the government paying the people to leave, (writing on the board).	126

	Who pay to who? This is case of pension. But for the case of nail houses, the people did not receive the pension, so what is the next step the government did, which is unfair.	
Student A:	Yes, they kick them out.	129
Teacher:	Okay, who requested the government to kick them out? Who want the land?	130
Student D:	Yah, who.	131
Student A:	Lee Ka Shing.	132
Teacher:	So okay guys, for nail house, why it is unfair is not about the government paying money to the people.	133
Student A:	But it's the developer who pay the government.	135
Teacher:	Yes it is because the people don't want to leave the place why the developer wants the land. So they who want to earn money, they pay the money to the government. And what did the government do, they just?	136
Student B:	Keep the problems.	139
Teacher:	They just destroy the house. Okay? For example, now like I want this land, and I am the government so I pay each of you the money, but only Shoaib don't want to leave as he is so sleepy, and then for example, Mr Yeung is the developer and he gave me the money. And so the corruption is appeared within who and who?	140
Student D:	Mr. Yeung and you.	144
Teacher:	Yes very good it is between Mr. Yeung and I. So let's move to the next case. So internet censorship?	145
Student D:	Some information about the internet censorship	147
Teacher:	Some information about what?	148
Student D:	Censorship	149
Teacher:	So what is censorship? Information For example sites like google, Yahoo and Youtube right? What has been done in China to them?	150
Student B:	They are making their own sites	152
Teacher:	So can we get access to the same information there in China?	153
Students:	Cannot.	154
Teacher:	So for example Mingsu, Mingsu, imagine you are now in China, you want to search the information in Google, what would happen?	155
Student M:	Blocked	157
Teacher:	Okay, blocked, why is it blocked? (some voices appeared in students but not clear?)	158
Teacher:	Okay, Brian, is the information blocked in China, for example Google.	159
Student E:	Because they want to separate China from this social issues.	160
Teacher:	Okay separate China from what? Hatim help.	161
Student A:	From the rest of the world!	162
Teacher:	So why the rest of the world. Separate it from the rest of the countries, so we see the politics behind. Any others about internet censorship? Hamza any idea?	163
Student G:	Sir, the public, the government hide the truth.	165
Teacher:	Okay, hide the truth (writing on the board), because to remain their reputation. So these are the information about the internet censorships. Now we collect the information, so now let's group the four categories together. Guys, these four things are actually something related to China right? (Teacher discussing with students for 2 minutes answering students concerns)	166

Student E:	How to group them?	171
Teacher:	So continue, we are now grouping them together. How can you find the relationship? I want you to do something very important. If you group the things together, you will find the relationship among these the four elements. So make sure you write on each brackets. If you do not have the information in hand, ask the others for the information in the brackets. So I will show you one possible thing to group them together. So for example, group number 1. I try to group mass incidents and internet censorship and... Ya, this is an example and you will have to do it by yourself later, and petition. Okay. Ummm, Okay. So I group these three items together. Why I group these together? Are there something in common?	172
Student B:	Internet Censorship, Mass incidents.	182
Teacher:	Yes mass incidents can go online.	183
Student B:	Internet censorship by the government and there are mass incidents.	184
Teacher:	So why? What is the reason I group them together.	185
Student B:	This happen very close to that one.	186
Teacher:	Okay you try to link them but you cannot group them together. So there is something upon the three ideas, okay? Brian, what are the three things we group together? Hamza has a very good try so I am going to explain the reason why I group them in this way.	187
Students:	Yeah.	191
Teacher:	Mass incidents, does it related to the ideas how people express opinions to the government? (Students agreeing saying yeah...) I use the word opinion, okay? Why internet is blocked? (students try to explain saying because) Because when they say something bad, the government don't want them to show up because it affects the reputation, so this related to opinion right? The third thing, partition, the opinion from Chinese people to who?	192
Student G:	Government.	198
Teacher:	So this is also giving opinion right? So for group number one, I try to group these three things together, and the reasons are...	199
Student B:	Opinion.	201
Teacher:	Because these entire three thing include opinion. Okay, now have a look, why it does not include corruption?	202
Student B:	Because these things do not involve opinion.	204
Teacher:	Yes, because these are related to opinion but corruption is related to money. So this is important to group these three things together as it helps you to exclude corruption, right? So you know the way to group, right? Now I want you to try your own grouping. You can group to two to three groups and think why they are related together. So now I give you some time to group together. Everyone at least try two to three groups. (Students doing the grouping in groups, teaching walked around to guide them)	205
Teacher:	You can group them according to your understanding. 46:07:60 (Student's discussions for about 5 minutes)	212
Teacher:	Guys do you get the grouping? How was it? Okay guys, let's try. Group number 2. What are the topic involves?	213

Student A:	Corruption and petition (students voice is not very clear)	215
Teacher:	Which two?	216
Student M:	Corruption and internet censorship, they block the information so others may not know about it.	217
Teacher:	No, this is just linking the things to the events but not the things of concepts. It does not show common characteristics. That is not a grouping. (Silence) Hamza do you have idea? Guys, back, listen!	219
Student B:	Mass incidents, people have freedom. Internet censorship people don't have freedom and petition people also don't have freedom.	222
Teacher:	So, it is A, C, D (representing the three concepts) the reason of the grouping? (Three students answer at the same time) Student B: Mass incidents people have freedom, internet censorship and petition people don't have freedom.	224
Teacher:	Alright, is that okay? So A means mass incident here. B means corruption, C means internet censorships and D is petition. So A , we have freedom inside right? As we can do protest right? We have freedom to do it. For C Internet censorship, it will block the freedom we do not have freedom to get assess the internet right? So no freedom. And D, petition? Are Controlled, government controlled the opinion, what opinion to be given, what not to be given So the people may not have freedom. We can connect them with the word freedom, so that's why Hamza put the three things together. Okay? This is making sense. Any other ideas to seek the common features? Hatim do you have ideas?	228
Student M:	A and D	237
Teacher:	Okay, let's try one by one. Okay voice. And D? D is voices?	238
Student M:	Petitions	239
Teacher:	Petitions related to what? What is the common thing you want to raise? Voices?	240
Student M:	Opinion	241
Teacher:	Okay so now you can check, is B related to this, voices corruption?	242
Student M:	No	243
Student B:	Then B and C	244
Teacher:	And then Internet censorship is this related to opinion and voices?	245
Student M:	No	246
Teacher:	Why	247
Student M:	Because it is blocked	248
Teacher:	So actually A have voice, D has voice, and then C doesn't have voices. And actually you can group them together, because these three things are in common. And for corruption, it is not applicable, like NA. (looking at student B) Okay, try.	249
Student M:	Why Internet censor.	252
Student B:	B and C	253
Teacher:	(Answering student M) So you try in include censorship because you use the concept "voice" ,(pointing A) have voice ,(pointing D) have voice ,(pointing C) no voice, they are about voice. Okay next one.	254
Student B:	B and C	257
Teacher:	B and C, try , why.	258
Student B:	Censorship because they are hiding something and corruption also hiding	259

	something. Teacher: Okay I heard hiding and no control. Okay for corruption, hiding what?	
Student B:	Hiding the crime	262
Teacher:	Okay, hiding the crime, and C? How?	263
Student B:	C: hiding the news, what's on the internet?	264
Teacher:	Okay, hiding the truth.	265
Teacher:	And mass incident, oh in another way, is mass incident unfolding something?	266
Student B:	Yes, voicing out.	267
Teacher:	Okay voicing out, okay so you may say, B is hiding C is hiding, A is not hiding right? Can you apply this idea to D, petition?	268
Student B:	Yes, they are not hiding.	270
Teacher:	Not hiding, how not hiding?	271
Student B:	Because the government wants to receive different opinion	272
Teacher:	Guys, this is a very good example, so you see you use this word to analyze the four things together using the word hiding, right? So you see some is hidden, some is not hidden so even it is a Yes and NO, you use the word "Hide", so now you get the idea, very close, any other ideas? Grouping? Think something in common.	273
Student M:	It's all, ABCD.	277
Teacher:	ABCD try, how 60:10:60 Student M: Everything is done by the Chinese government. Teacher: Yes, okay this is related to Chinese government	278
Student M:	Ya	281
Teacher:	Okay, all about Chinese government, let put it into detail, how it is related to the government one by one. A, how it is related? Student B: Because government does something and people do protest. Government do the corruption ;Government block the internet and the government ask the opinion from the people.	282
Teacher:	Okay, very good, government. So now we try to evaluate, for A Mass incidence, the things that the government doing to the people, is something good or bad?	287
Student B:	Bad	289
Teacher:	Bad, okay let's see, doing good or bad - mass incident.	290
Student A:	Bad	291
Teacher:	Because the government what? They do something bad and then.	292
Student A:	And then they bring it on the.....	293
Teacher:	So the government is doing bad. Next? B corruption?	294
Student A:	Really Bad, because it was unfair.	295
Teacher:	What did the government do, you have to tell we what they have done.	296
Student M:	Steal	297
Teacher:	No they do not steal, but they receive the money from who..?	298
Student M:	Public	299
Teacher:	Public.... May be companies?	300
Teacher:	So C? Internet censorship? Is the government doing something good or bad, how bad it is. Brian tell me how bad is internet censorship.	301
Student E:	Block the websites	303
Teacher:	Okay they block the websites so they are not good. And D? Something good or	304

	bad?	
Student M:	Good , sir.	305
Teacher:	Okay how good.	306
Student B:	They ask opinion from the government.	307
Teacher:	Okay now, we have collected enough groupings, so let's make three important discussions. Let's do the number 5 first. Okay we see something good for the government and the rest are bad. Can you give the name of this group that explain, for example the government is bad and good.	308
Student B:	Something about the government.	312
Teacher:	Okay, something related to the government, right? The label contains the word government, so can we be more specific? How to name this idea? What are these about? Good and bad? They did something good, and something bad? How do we name it?	313
Student B:	Good and bad	317
Teacher:	Government's good and bad	318
Student B:	50/50	319
Teacher:	50/50 So the name of the group is government's 50/50, okay. Close, close, what is the name? Why it is government good and bad? If I say hey let's discuss the government's good and bad. You can tell me all these right? So we can check this name is actually appropriate	320
Student B:	You cannot only say bad, because for petition they ask opinion but they could not follow them.	324
Teacher:	So it could be something good or bad you want to clarify right? Very good.	326
Teacher:	So the name here is the government goods and bads, so if you use this name it includes all things right? (Bell rings)	327
Student D:	ABCD, ya.	329
Teacher:	Okay, this one, you are hiding something; you are hiding something; you are nto hiding something, not hiding something, right? How to name it? Explain, for example B corruption is hiding the crime	330
Student D:	hiding the crime	333
Teacher:	C is hiding the truth	334
Student D:	Hiding the truth	335
Teacher:	And then A is not hiding the truth and D is not hiding the truth because it receives opinion, so what is the name of this group.	336
Student A:	ehhh	338
Student B:	Hide and seek.	339
Student M:	Hide and seek	340
Teacher:	(giggle) Hide and seek? Why, why. Give me reason why. What is "hide" and what is "seek"? (Three students speaking at the same time B, A and M)	341
Student A:	Because it is looking for the information	343
Student B:	Yup, ya	344
Student M:	Ya	345
Teacher:	So what are seeks?	346
Student A:	People seeking the truth	347
Student B:	The government is hiding the truth	348

Teacher:	Government is hiding something and the people are seeking something. Good (the recording stopped and the lesson was about to end)	349
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Appendix4. Transcriptions of interview A

Interview A

Date: 28/03/2014

Duration: 22:11(mins)

Venue: IKTMC 1/F Teacher's room

Speaker	Content	line
Interviewer:	For the lesson just now, basically I try to give you more information and request you to group them together and name them, so you can name the concept. For different things with similar wordings. For example I group the words with opinion, some group it with freedom, so Hamza they group the word with government. Mingsu use the wording hiding and he names the word quite funny, so hide and seek remember? And the government goods and bads? They try to name the different groups. So now I want to ask you , in this lesson, what is the specific challenge you face in the lesson?	1
Student A:	The specific challenge was “not knowing how to do most of the questions”	10
Interviewer:	Don't know how to do.	12
Student A:	I know how to do but it's about the details, how to elaborate.	13
Interviewer:	Which part?	14
Student A:	In terms of the grouping.	15
Interviewer:	So difficulties in group?	16
Student A:	Yes	17
Interviewer:	So how difficult is it?	18
Student A:	It was a challenge as some students was giving some opinions that I am going to give. Like, same way of thinking with other students.	19
Interviewer:	Um... Same way of thinking. Okay, for example, what is the thing they mentioned already and you are not going to say.	21
Student A:	It was about “hiding the truth” about the government, I was going to say that but then like it was already given.	22
Interviewer:	Already given, who gave it?	24
Student A:	I think it was by Hamza and Mingsu.	25
Interviewer:	So do you have something different? May be they use the same idea, but it could be the concept you interpreted a little bit different with them, so are there some specific differences? (3:00)	26
Student A:	There are different kinds of situation mentioned like corruption, the government they don't want to show the negative side, that my way of thinking. They are corrupted.	29
Interviewer:	So “as they are corrupted “so they don't show the negative side. So this answer shows a little bit difference with the other student's right?	32
Student A:	Yeah, it doesn't want to show its negative side and what my classmate said was “hiding the truth”	34
Interviewer:	Okay, so I see like “hiding the truth” and negative side they are different wordings. So what made you stop raising the idea? It means that “oh no they say “hiding the truth” but I may say “negative side”. But you don't, so why don't you raise your point?	36

Student A:	I don't raise the point because it is almost the same saying of "hiding the truth" and it means almost the same thing. So I am thinking to say something else but I don't know what to think of.	40
Interviewer:	So you want to think something else.	43
Student A:	Yup.	44
Interviewer:	So what is your feeling when your point was already given?	45
Student A:	I kind of felt, like, it was something to get to....	46
Interviewer:	How do you feel?	47
Student A:	I am thinking just like... let them have it... let them have it and maybe I can get another chance. (06:07)	48
Interviewer:	Okay...so now we name the concept again, which wordings will you choose? "negative side or "hiding the truth".	50
Student A:	I would say negative side as it is elaborating more on the situation coz "hiding the truth" is just thinking on the same line, but "negative side" has more details on the statement.	52
Interviewer:	So you believe it has more detail and it is more elaborating than just saying "hiding the truth", so do you believe "negative side " is more comprehensive and a better way to explain the issue?	55
Student A:	Ya, Yes I think it's a more better and a comprehensive way to get the issue coz actually that's one of the easier ways to answer it than just saying "hiding the truth" coz if you say "hide the truth" you will be asked to elaborate more.	58
Interviewer:	So according to you, why don't you give a better answer then just leave it?	62
Student A:	Well, all the answer was already given so I think probably its gonna maybe used later, may be another answer, maybe I can use that point in the next lesson.	64
Interviewer:	Okay, so now let's back to the idea of grouping because I notice that according to your ideas, you receive some experience, about challenging experience of grouping right? What do you feel when you face this kind of challenge.	67
Student A:	May be I am not quite concentrated. Maybe the concentrated is needed more...like if the teacher has already explained it and I wasn't listening and probably that's the problem how I didn't know who to do it.	71
Interviewer:	So what did you do to cope with this challenge?	74
Student A:	So I stopped taking to another student - Usman. I was paying more attention and I was starting to get the idea of how to work it	75
Interviewer:	Give me a story, an exact thing you tried to do to understand this assignment.	77
Student A:	I started to do my work, to do my paper, write down the notes on the blackboard and I start to cope with the points I wrote down.	79
Interviewer:	For grouping, it requires you to find the similarities of the categories, 3 out of 4, right? So what is the challenge or you to try to link the three things to the same concept?	81
Student A:	The challenge was most of them have the same similarities. For example the government was hiding the truth, showing the negative sides, blocking the internet censorship, like blocking the websites the foreign websites and most of them are linked together and most of them were what China was doing recently, in recent years.	84

Interviewer:	So what is the challenge?	89
Student A:	The challenge was trying to point out the similarities coz um maybe some of them are even out of topic, so you should work like think harder and how to answer the questions.	90
Interviewer:	So what do you think it's hard and out of topic?	93
Student A:	I think let's say talking about corruption and I came and say that about If the corruption and the government stop the websites, the foreign website because of corruption something like that and that was out of topic and that was going to be confusing.	94
Interviewer:	Yes, agree as it was just linking the things together but not using the common terms. Okay, and then, how do you face this challenge, how to solve the problem?	98
Student A:	How to solve the problem, was just concentrate in class and note down whatever being said and taught and also like try to understand, even think more than ,let's say corruption, not only looking on the blackboard but you also gonna think in another way. So you can get more understanding and what the situation is.	101
Interviewer:	Okay, so for the grouping, after the grouping we name the concept right? When it comes to naming the concept, are there some challenges for you?	106
Student A:	well, there's no challenges as you can name them using some easy name and fine name like whatever they said like "hide and seek", "good and bad sides of the government" , there's not pretty much challenge.	109
Interviewer:	So do you have a different idea with them.	110
Student A:	Well, no coz will also be saying the same thing if I was to name them. I will make them easier like easier to understand.	111
Interviewer:	Do you think of the exact word "hide and seek" when they raise out?	113
Student A:	That time I was actually thinking of the same thing as the whole class was thinking of the same thing "what the government was hiding and what the citizen was seeking. So that was a kind of word that was obvious to use like you can use as the name of the concept.	114
Interviewer:	So what do you think when the others were naming the same thing of you which means the answer was very close to your idea and your mind right? So what do you feel?	118
Student A:	I feel like we have the same understanding same way of thinking, I feel like I share the same kind of knowledge.	121
Interviewer:	Same understanding; same kind of knowledge, any others?	123
Student A:	No	124
Interviewer:	Okay, so back to the grouping, do you receive any difference for your answer compared to your students?	125
Student A:	There are some differences like how they saw they didn't elaborate much, but I elaborated some single detail more.	127
Interviewer:	What means you elaborated some single detail?	129
Student A:	Like they give a particular kind of answer. Brian just said corruption, and what I was thinking I was, like the difference was that I would give corruption and why it was corruption and give examples of it.	130

Interviewer:	So you mean the difference is that you will try to elaborate more.	133
Student A:	Yes.	134
Interviewer:	How about, do you have different opinions from other in grouping, for examples, you want to group in this way, however, another student do not agree with your idea, was there such a case like this?	135
Student A:	Well, no coz most of they were sleeping in class, and as we were doing in groups and we were all giving our opinions, we are agreeing with it or disagreeing with it and this go with what our group thinks.	138
Interviewer:	So you did not encounter different opinions.	141
Student A:	Yes.	142
Interviewer:	Do you think the concept learnt related to yourself?	143
Student A:	Uh, um, no.	144
Interviewer:	No? Why?	145
Student A:	Because like I was not related to whatever they are doing. Like what taught was internet censorship, corruption, mass incidence and petition, like they were not related to me coz firstly we were not in the same environment of what the other people learning and what they were facing, like this problem they faced in China. I stay in Hong Kong so I don't relate them to what happening to me.	146
Interviewer:	So, what are the possible reasons for you to learn this concept, do you think these concepts are important to you?	152
Student A:	I think the concepts are important on us. We will get more education on the country and we will get to know more about what the country was doing and not doing to the people.	154
Interviewer:	You use the word "country", is this a general sense about like what a country should be, or you are specific thinking about China?	157
Student A:	I was thinking China mostly because it mostly... this topic was mostly going for China, and all these stuffs were about China.	159
Interviewer:	So if I rephrase, does it mean that you believe that although the concepts are not related to yourself, but learning these especially the China thing is important for you?	161
Student A:	Yes because by learning them, we will have more knowledge about China.	164
Interviewer:	Does the knowledge about China related to you?	165
Student A:	The knowledge is related to me coz I am in Hong Kong and Hong Kong is in China. Mostly we would like to know more about China is the dirty side and the clean side, what was doing negatively and what was doing positively and maybe we can see the difference comparing to other countries.	166
Interviewer:	What is the importance of understanding the differences?	171
Student A:	The importance of the differences is, we will know how the country is and we get to know the truth of each country. The difference also can help us in knowing different kinds of situations, for example China and US. China – corruption and internet censorship, and US was providing the internet like e.g. Facebook YouTube and Google and they are also providing it, so we can see what the competition is.	172
Interviewer:	Why do you use the idea of US in your answer just now? (21:04)	178

Student A:	I use the idea US because in terms of power I think US and China have competitiveness and making products, economy, all different situation.	179
Interviewer:	Okay, so can you generally comment the lesson you have just now?	180
Student A:	Well I think the lesson was fruitful and it helped us to get more knowledge, what China is and how China is in terms of the politics. And the knowledge about how the situations is controlled in China.	181

Appendix5. Transcriptions of interview B

Interview B

Date: 28/03/2014

Duration: 24:24(mins)

Venue: IKTMC 6/F Teacher's room

Interviewer:	This is an interview after the class. What is the specific challenge you encountered in the lesson?	1
Student B:	The specific challenge was that sometimes I find it is difficult, the wordings	3
Interviewer:	When is the thing happened exactly? When? Some wording are difficult?	4
Student B:	Sometime the specific challenge was that I don't want to write, just want to say something, don't want to write anything. That's the discussion part but I don't think there are any challenges It's easy for m	5
Interviewer:	Okay, but for the challenge, the discussion here is basically within today double lesson, only this double lesson. So you tell me the wording is sometimes difficult, so what wordings are they? Can you give me some examples?	8
Student B:	Umm, I don't know	11
Interviewer:	For example, today's lesson? Which part contains difficult wordings for you?	12
Student B:	I don't know, maybe it is one of the part of the label, when we are need to name it	13
Interviewer:	You mean to grouping or when you tried to name it?	15
Student B:	Try to name it	16
Interviewer:	So especially it was the third part.	17
Student B:	Yes	18
Interviewer:	It's the labeling. Which label especially you think is difficult?	19
Student B:	The first one	20
Interviewer:	The first one?	21
Student B:	Which means in corruption, internet censorship and petition	22
Interviewer:	This one is grouping	23
Student B:	Ya, I feel difficult to label them	24
Interviewer:	So, does it mean that you find the relationship among them. However, no. Although you know they are related, you don't know how to use the word to label them?	25
Student B:	yes	27
Interviewer:	Okay so it means that some groups are difficult to be labeled? Is it?	28
Student B:	Yah	29
Interviewer:	Okay, so Why is it difficult? Or why do you think you can't use the correct term?	30
Student B:	Because in this group, the meanings are different so in one part government is doing good in one part government is doing bad, so I don't know which label to write to label them	31
Interviewer:	So maybe you are thinking one word (that) may be able to label to them, however, some goes right and some go wrong. Okay maybe you are stuck in ..., maybe you can use the word, however when it requires to take side, you think it is difficult to use them. For example take case number 1, so what is the word	34

	you want use despite and positive and negative feedback?	
Student B:	I can't think of.	39
Interviewer:	So even the word, you can't think of at that time?	40
Student B:	At that time I was just thinking good or bad. If I want to elaborate with only one word, I don't know how to do it	41
Interviewer:	So you don't know which word would be.	43
Student B:	yea	44
Interviewer:	Can you think of like a lot of words? I mean if you are now allowed to use a lot of wording to try to summarize, will that be better?	45
Student B:	Yes, that would be better.	47
Interviewer:	So for example now you are allowed to use more words, so what will you do? I mean what would the words be?	48
Student B:	In the label part?	50
Interviewer:	Label this group so for example group number 1, and then you are to label this right, so what?	51
Student B:	Government do right thing and at the same time do some bad things	53
Interviewer:	OK so you will say do something good and do something bad, but the thing is you don't know how to mention...? So maybe I can share you the word – performance. And then whether it is good or bad, you can explain afterwards, because when it comes to the administration, you can say the performance is bad, so when you use the word performance, how the government perform, you are already summarizing the thing 7:16.79 But now let's back to the interview so this was a challenge because you can't find of the exact word, so what will you do if you can't find of an exact word?	54
Student B:	Just... get help from the teacher	62
Interviewer:	How to get help?	63
Student B:	Ask the question, what should I label to this group	64
Interviewer:	Can you ask in another way to show the same meaning? For example right now, now it's the situation.	65
Student B:	"I can't understand this situation so can you help me?"	67
Interviewer:	So what do you expect the teacher will give you?	68
Student B:	He will teach me how to handle this	69
Interviewer:	Teach you what? I mean what type of answer are you waiting for the teacher	70
Student B:	The word, the explanation and the exact answer	71
Interviewer:	So probably you want the teacher to give you...?	72
Student B:	With some details	73
Interviewer:	Or exactly the word?	74
Student B:	The word and some detail with explanation	75
Interviewer:	Did the teacher do so?	76
Student B:	Yep, most of them	77
Interviewer:	Did you ever thought about not asking in this way? In an opposite like I want the teacher to rephrase the question and I think of the answer	78
Student B:	Ya, sometimes, like you challenge the truth of the answer so sometime I do	80
Interviewer:	So, in what situation will you do that?	81
Student B:	When everyone is not speaking	82

Interviewer:	So whether you want the exact answers depends on the other's situation? Depends on if the teacher is asking the question? Or?	83
Student B:	When I want to do on my own	84
Interviewer:	When you do it on your own... you	85
Student B:	I want the exact answer and explanation	86
Interviewer:	So when you are doing together? What would the situation change? Or no change?	87
Student B:	I will just get help from my friends	89
Interviewer:	So let's back to the case of this class, can you get help from the friends from your school mates today's lesson?	90
Student B:	Yes	92
Interviewer:	How?	93
Student B:	I am doing my work and suddenly my friend is answering the question.	94
Interviewer:	Who is helping?	95
Student B:	Mingsu , he was answering to the question, answering to their questions so I heard that and I answer his answer	96
Interviewer:	What is his answer?	98
Student B:	That time I think he was grouping the things	99
Interviewer:	Grouping which one?	100
Student B:	Grouping number 3 , A, B C and D	101
Interviewer:	Okay, grouping number 3, so it is about voices, so how did he help you?	102
Student B:	I know what is the connection between these three	103
Interviewer:	Yeah, so what is the connection? According to your understanding?	104
Student B:	Oh reasons grouping with voices and opinions	105
Interviewer:	Voices and opinions, through Mingsu answers, you know, oh, actually I can group in this way, okay. So, umm, what do you feel when you are not able to give the exact word or you find some challenges?	106
Student B:	I don't want to do it again	109
Interviewer:	You don't want to do it again. Umm, why it is so? 12:0052	110
Student B:	I just want someone to tell me everything, you just hear by and don't have to write for anything, immediately?	111
Interviewer:	So , why do you want someone to tell you the exact answer immediately instead of thinking of it? Coz this two is actually a comparison right? I think by myself and the teacher tell me, so why you choose the latter one?	113
Student B:	Waste of time to do by myself	116
Interviewer:	So you think it is a waste of time? Okay so let's compare the two ways, for example, I think the answer by myself and teacher tells me the answer. Compare the situation, which one is , if for example, I can think of the answer then I get the answer A; and the situation two, teacher tell me answer A and I get it. In terms of your idea, are there any difference, or it is actually equal?	117
Student B:	Do by my own, I think it may be it is wrong, or it is right, I think maybe I am just wasting time to do wrong things I can just ask the teacher, what is the right answers	122
Interviewer:	So if, by teacher, what is the result?	125
Student B:	I don't know how to answer this quesiton	126

Interviewer:	So I rephrase your answer it means that if I think of my own, I have to judge whether it is right or wrong; while if it(the answer) is from teacher, definitely it is right	127
Student B:	yep	130
Interviewer:	So I don't waste time, so this is one of the things. Any other comparison you want to add?	131
Student B:	No	133
Interviewer:	Okay, can I say you feel more safe when the teacher tell you (the answer)?	134
Student B:	Yep	135
Interviewer:	Okay, so now let's see. This one is (point at the worksheet of student B) A, C and D, did you remember the teacher tell you an example is A C and D as well. So A C and D are related to opinion and corruption (B) is not related, so this one is from the teacher. (Point the other grouping) This one is form your classmate Mingsu right? Can you tell me the similarities and differences between these two?	136
Student B:	Between the two, here it is different to analyze, he is giving different name to them, different connections	142
Interviewer:	What is the difference?	144
Student B:	My teacher using "opinion" and my friend is using the word "voices" 15:40.19	145
Interviewer:	Ok say which one is better describing, is more appropriate?	146
Student B:	I think both are okay	147
Interviewer:	So, um...so both are okay so for example, in exam which one will you use?	148
Student B:	In exam? I am going with teacher's one.	149
Interviewer:	Why?	150
Student B:	Because the teacher will be impressed if I am doing in the same way	151
Interviewer:	So, for example now you are doing the public exam, it is not the teacher who taught you mark, so you are now free from the marker, and you don't know who is going to mark it, so I want you to compare, maybe this (teacher's) one and that (friend's) one are actually describing the same idea grouping the same thing, so how do you comment for example you can comment this and comment that, what do you feel?	152
Student B:	Both are okay,so	158
Interviewer:	Both are okay (jotting down notes). Um, okay, so do you think actually when they group the things and we have learnt some label, the first thing is the "government good and bad" the second things is the "hide and seek" right? So These are the two concepts we learnt in lesson, what do you feel about these two concepts?	159
Student B:	Judging between these two?	164
Interviewer:	Your feeling about the concept, about the way you learn. Let's ask in this way the first thing, um, do you think these two concepts help you in the way of your learning?	165
Student B:	Yes	168
Interviewer:	Why?	169
Student B:	Because it connects some wordings with each other	170
Interviewer:	So (jotting down notes) it help connecting some wordings with...?	171

Student B:	With each other or relate them up	172
Interviewer:	Okay, so, ah, do you thing this two concepts are related to yourself or it help you or have close relationship with you?	173
Student B:	No, I never be in such situation	175
Interviewer:	Okay (jotting down notes) so, um, then why you keep on learning when it is not related to you?	176
Student B:	May be I can use the idea in the future, maybe I can teach someone else	178
Interviewer:	Okay (jotting down notes), or maybe you can use in the future	179
Student B:	Um.	180
Interviewer:	Do you have ever encountered, in this class, some different ideas with others?	181
Student B:	Yeah...	182
Interviewer:	When, which part?	183
Student B:	In this lesson I do not have this situation.	184
Interviewer:	So different opinions, you don't have?	185
Student B:	Um.	186
Interviewer:	Okay, so in general, what do you feel about this class, like you now you can compare this with other classes or you can comment what do you feel about this way of learning, because basically this way of classification is new	187
Student B:	I feel good and this is a fast way to learn	190
Interviewer:	How fast is it? Why it's fast?	191
Student B:	Like, we use so difficult wordings; easy to get your ideas and I understand clearly that the way you teach	192
Interviewer:	Can I rephrase that you can follow the planning? I mean you can follow the... The what?	193
Student B:	The way that the teacher teaches	195
Interviewer:	Okay (jotting down notes) So which part do you think it is most, like, impressive or important for you?	196
Student B:	Mass incidents	198
Interviewer:	Mass incidents so you mean (pointing at the worksheets) the information in the mass incidents, why?	199
Student B:	Because the teacher, no, the people can express their opinions; they can voice out their freedom	200
Interviewer:	So you mean you learnt these concepts?	202
Student B:	Yeah, even petition	203
Interviewer:	For petition, so...	204
Student B:	(interrupted) Before I don't know this word so just in this lesson I know what is it about	205
Interviewer:	So, basically you know something new , you know what it is, in this lesson	207
Student B:	Yes, mass incidents and petition I didn't know this term before so in this lesson I know more actually what do they mean	208
Interviewer:	So it means that, like, before the lesson you have not much idea about mass... I mean these two lessons to them	210
Student B:	yea	212
Interviewer:	So, before this two lessons, before the third and the fourth lessons, you do not have a ... (StudentB: idea) clear understanding about the mass incidents and	213

	petition. Internet censorship?	
Student B:	This one like I can get an idea between censorship and the internet	216
Interviewer:	Okay. In this lesson, you learn these two.	217
Student B:	yeah	218
Interviewer:	Okay. New information? So do you think it is because the teacher explained this idea or because students recalled different information?	219
Student B:	Because of teacher.	221
Interviewer:	Okay, because teacher taught. Umm and for these two parts (pointing at the worksheet)	222
Student B:	These two parts, teacher also did it. Before students grouping teacher had set up an example on the board	224
Interviewer:	Okay, do you have any general comment before the end of the interview	225
Student B:	No	226
Interviewer:	Okay, so this will be the end of the interview.	227